

PREPARED FOR SAN FRANCISCO WASTEWATER PROGRAM

Step I Facilities Plan

COMMUNITY FACILITY

at the
SOUTHEAST TREATMENT PLANT

JEFFERSON ASSOCIATES, INC.
CURTIS ASSOCIATES
ISHIMARU, O'NEILL & SIMMONS

MAY 1979

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SUMMARY

INTRODUCTION

Background

In March 1976 the State Water Resources Control Board (SWRCB) adopted Board Order WQB 76-6 which included a commitment to the development of a recreational facility over the clarifiers at the Southeast Water Pollution Control Plant as a mitigation measure for the adverse impacts of treatment plant expansion. Following community criticism of the establishment of a recreational facility as the appropriate mitigation measure, a planning study was initiated to determine the most appropriate community facility for meeting community needs and desires while mitigating impacts of plant expansion. In September 1978 Jefferson Associates, Curtis Associates, and Ishimaru, O'Neill & Simmons began work on a six-month planning study for the facility under the guidance of the San Francisco Wastewater Program.

Objectives and Scope

The primary objective of the project is the development of a conceptual design plan for a facility located on a seven acre site adjacent to the Southeast Treatment Plant that will mitigate any environmental or social impacts of the project.

The Study Area

The Study Area is the Bayview Hunters Point community of San Francisco.

Treatment Plant Expansion Impacts

An Environmental Impact Report (EIR) was prepared by the City and County of San Francisco on the environmental effects of proposed developments near the Southeast Treatment Plant Facility. The EIR identified a number of adverse impacts of the proposed development actions. But with the exception of relocation of a number of businesses and a residence, the identified impacts were short-term effects on traffic, noise, utilities, and air quality related to construction activity.

Perceived Impacts

Responses by members of the Bayview Hunters Point community to the planned expansion of the Treatment Plant facility suggested that there may be other adverse environmental effects of the project not identified in the EIR. Some community residents indicated that the plant expansion may result in a degradation of the social and psychological desirability of the area, negative effects on visual quality of the area, a lowering of the economic desirability of the area, and danger to the public safety of community members. A community household survey was conducted within the study area in part to determine the perceived effects of the treatment plant expansion. Approximately sixteen per cent of the respondents felt that the plant expansion would lower air quality with increases in smells or odors in the air. Twelve per cent of the respondents expected the plant to provide increased employment opportunities. Other respondents expressed the opinion that the plant would help the city or the community (10%). Both negative and positive reports on the impacts of the facility were more likely to occur in the census tracts closer to the facility than in areas removed from the treatment plant site.

EXISTING CONDITIONS IN THE STUDY AREA

Community Profile

Over 70% of the Study Area population is Black as compared with 12% of the City's population. In general, the study area population is less educated, has more children, less seniors, lower household incomes, and is more likely to be employed in blue collar and service jobs than in white collar jobs when compared to the population of San Francisco as a whole.

Environmental Conditions

The project site is located on predominantly flat land leading from 25 feet above sea level to an elevation of 50 feet. Southwest of the project site is a 150 foot hillside, directly east is a 250 foot hill, and immediately south is Mt. St. Joseph with an elevation of 250 feet. Two active earthquake faults lie within 10 miles of the project site. Air quality within the project area rarely exceeds federal and state air quality standards. In San Francisco, winds move from a westerly to northwesterly direction most of the year with annual air speeds averaging nine miles

Views and Vistas

The site is highly visible from two hillside areas adjacent to the project. The views and vistas from the site are substantial and expansive; providing a varied panorama of the treatment plant, the Bay waterfront, the railroad tracts, the Oakland Bay Bridge and the San Francisco Bay.

Present Uses

Most former occupants of the site have been relocated or are being relocated. The only present uses of site land of a non-temporary nature are two businesses and a residence. The only vegetation of any consequence on the site is a row of mature Cypress and Eucalyptus trees on the smaller triangle to the southwest of the railroad tracks.

Aerial Easement

An aerial easement for a bridge connection between the two sections of the parcel on either side of the railroad tracts could be obtained from Southern Pacific if adequate vertical and horizontal clearance is provided.

ALTERNATIVES

Twenty-five possible community facility alternatives were developed through a special meeting of technical specialists and by the research efforts of the consultants.

Screening of Alternatives

To select four final alternatives, the 25 options were screened using an evaluation matrix which focused upon constraint and benefit criteria. The matrix was used to systematically evaluate and rank each of the alternatives.

Selection of Final Alternatives

The four options with the lowest matrix scores were expanded and modified, where consistent with the primary facility function, to include features of the other proposed options. The four selected final alternatives were:

- Commercial Greenhouse Garden Facility
- Skills Training Facility
- Community Recreation and Meeting Center
- Recycling and Reclamation Center

PREFERRED PLAN

Evaluation and Ranking of Final Proposals

Detailed conceptual plans were developed of the four alternatives in order to ascertain their operating costs, capital costs, employment and economic benefits, environmental effects and types of services and programs to be provided. These plans provided the basis for a technical alternatives evaluation as well as providing background information to facilitate community evaluation and ranking of the final options.

Public Participation Process

A community information and feedback process was employed throughout the project work process to provide community members with information about the project and to seek community opinion on community needs, community perceptions of the effects of the treatment plant expansion, and community preferences for a facility on the project site. Four methods of community participation were employed:

- Liaison with community organizations and individuals.
- A random sample household survey of 300 households.
- Brochures, public notices and a community newspaper to distribute information.
- An all-day community workshop.

Selected Plan and Reasons for Selection

The preferred plan for a community facility at the South-east Treatment Plant reflects the outcome of the following three major evaluation processes:

- Technical evaluation of alternatives.
- Community household survey.
- All-day Community Workshop.

The designated preferred alternative is an amalgam concept.

The Selected Plan

The selected plan concept includes both a Greenhouse Garden Facility and a Community Skills Training Facility. These facilities would be operated on the same site and be subject to overall management by one administrative body. However, in the day-to-day management, operations, planning, programs, and financial affairs, they would be separate, independent entities.

Greenhouse Facility: Plan Description

A commercial greenhouse/horticultural center would use environmentally sound technologies for the production of a broad range of horticultural and agricultural commodities for retail and wholesale marketing in the greater Bay Area region. Labor intensive operations would be emphasized in plant production to provide the optimum number of employment and job training opportunities. The facility would use treatment plant waste by-products; methane gas and sewage sludge for heating and compost production.

Skills Training Facility: Plan Description

The Skills Training Facility would consist of a multiple use complex designated to accommodate existing job training programs currently operating in the Bayview Hunters Point community and would provide for a significant expansion and addition of activities. The facility would provide training programs in high growth employment areas including paramedical services, computer programming and operation, and clerical services. It

would also provide a full ladder of training programs from general education courses to vocational placement services for direct job entry.

Environmental Impacts of the Selected Plan

The Greenhouse Skills Training Facility would have a positive effect on conservation of energy resources. It would have very limited impacts on ambient noise, because of the use of hand operated, electric, and battery operated vehicles for the greenhouse operation. It would have a positive effect on the air quality and visual quality of the ambient environment. It would provide new jobs and skill training opportunities for community members. It would have no irrevocable environmental impacts on flora, fauna, and the human environment from construction or operation of the facility.

PRELIMINARY DESIGN AND COST ESTIMATES

Cost and Revenue Assumptions

The estimated capital costs for construction and site development of the facility are based upon current construction costs on January 1979 dollars. The rate of inflation for construction costs on the Bay Area has averaged 1% per month over the last 2-3 years.

Operating Costs and Revenues

Operating costs and revenues have been estimated on the basis of current market conditions for similar facilities. Due to inflationary factors actual cost and revenues will be greater than those reported.

Capital Costs

The capital cost of site preparation and construction of the facility is estimated on \$7,040,000. Capital costs of Specialized Equipment and Furnishings are estimated at \$613,783. Total capital costs for the facility in January 1979 dollars are estimated at \$7,660,023.

Start-Up and Operating Costs

Personnel costs are the major start-up and operating costs for the operation of the combined facility. Start-up costs of the combined facility have been estimated at \$660,562. Annual operating costs for the Greenhouse Facility component are estimated at \$1,102,500. Annual operating costs for the Skills Training component are estimated at \$1,420,000. The costs of central administration of both components are estimated to be \$143,000 annually.

Funding of Start-Up Costs

Funding of start-up costs would be expected to come primarily from the Clean Water Grant Funds. The major portion of the start-up funding is related to necessary training and organization for operation of the facility.

Funding of Operational Costs

Operating costs of the Greenhouse Facility component would be met from revenues generated by product sales. Operating costs of the Skills Training Facility component would be the responsibility of existing skills training institutions and programs as the lessee users of the new training facility. Central administrative costs would be covered by fees from the Greenhouse Facility and from the Skills Training organizations.

Design Objectives

The site plan and the orientation of project design elements are based upon specified design objectives. These objectives were developed as guidelines to assist in the design of a facility space plan that would provide for optimal use of site conditions; primary design objectives include efficiency of the component programs providing points of visual interest, decoration and greenery, and an effective community access to the facilities.

IMPLEMENTATION ARRANGEMENTS

Organizational Structure

Facility Managers

It is recommended that a non-profit corporation be established to lease the land and facilities from the City and then sublease them to operators of the greenhouse and skills center. The non-profit corporation would manage the facilities and administer the lease revenues.

Commercial Greenhouse Facility

The Greenhouse Facility would be operated by or leased to a sole proprietor, partnership or corporation expressly for the purpose of operating the greenhouse.

Skills Training Facility

The agencies presently conducting training programs in the area would serve as the primary users of the space. The non-profit corporation would lease space in the Skills Training Facility to these existing programs.

Institutional Responsibilities

City and County of San Francisco

Title to the land and buildings would be held by the City and County of San Francisco's Department of Real Estate or by some other appropriate city department.

Non-Profit Corporation

The non-profit corporation would enter into a Master Lease Agreement with the City. The corporation would obtain its operating revenues through fees collected from the Greenhouse and the Skills Training Facility. All revenues would be reinvested for the development and maintenance of the facility with the intent of serving a public purpose.

Steps to Implementation

The following are necessary implementation steps:

- Submit facility plan to appropriate city and state agencies for approval.
- Work out details of managing mechanism.
- Retain consultant for Step 2 Program. Work program should include planning to put administrative mechanisms in place as well as architectural design of the facility.

Pre-Design Planning

- Determine which city agency will have general jurisdiction over the project.
- Begin negotiations for master lease agreements between the City and the management of the site.
- Identify major tenants and begin negotiations for lease arrangements.
- Finalize space schematics.
- Develop schedule for project development.
- Refine cost estimates and budget.

Site Analysis

- Detail site utilization.
- Complete site analysis including utility, soil and hydrology.

Schematic Design

- Develop architectural schematic design including interior design concepts.
- Finalize construction cost estimates.

Design Development

- Development construction specifications and working drawings.
- Complete equipment specifications and equipment bid documents.



Introduction

I. INTRODUCTION

STUDY PURPOSE AND SCOPE

Background

In March 1976 the State Water Resources Control Board (SWRCB) adopted board order WQB 76-6 which included a commitment to the development of a recreational facility over the clarifiers at the Southeast Water Pollution Control Plant as a mitigation measure for the adverse impacts of sewage treatment plant expansion. Since that time a variety of community members have expressed dissatisfaction with the proposed development of a recreational area as the most appropriate mitigation. Community concern has progressively focused around the objective of developing a facility that would provide jobs, skills training and economic benefits to the community. In September 1978 Jefferson Associates, Curtis Associates and Ishimaru, O'Neill & Simmons began work on a six-month planning study under the guidance of the San Francisco Wastewater Program to determine the most appropriate community facility for meeting the needs and desires of the community while mitigating the impacts of treatment plant expansion. This final report documents the results of the six-month planning process.

Objectives and Scope

The primary objective of this project is the development of a conceptual design for a community facility adjacent to the Southeast Treatment Plant in San Francisco's Bayview Hunters Point. The seven-acre facility site is bounded by Quint, Oakdale and Phelps Streets and the Southeast Treatment Plant. The present planning study includes:

- Description of the Study Area, including the community profile, socioeconomic characteristics of the community, private and public sector growth areas within the local economy, environmental conditions in the Study Area, and the organizational context for plan approval. These Study Area characteristics are documented in Chapter 2.

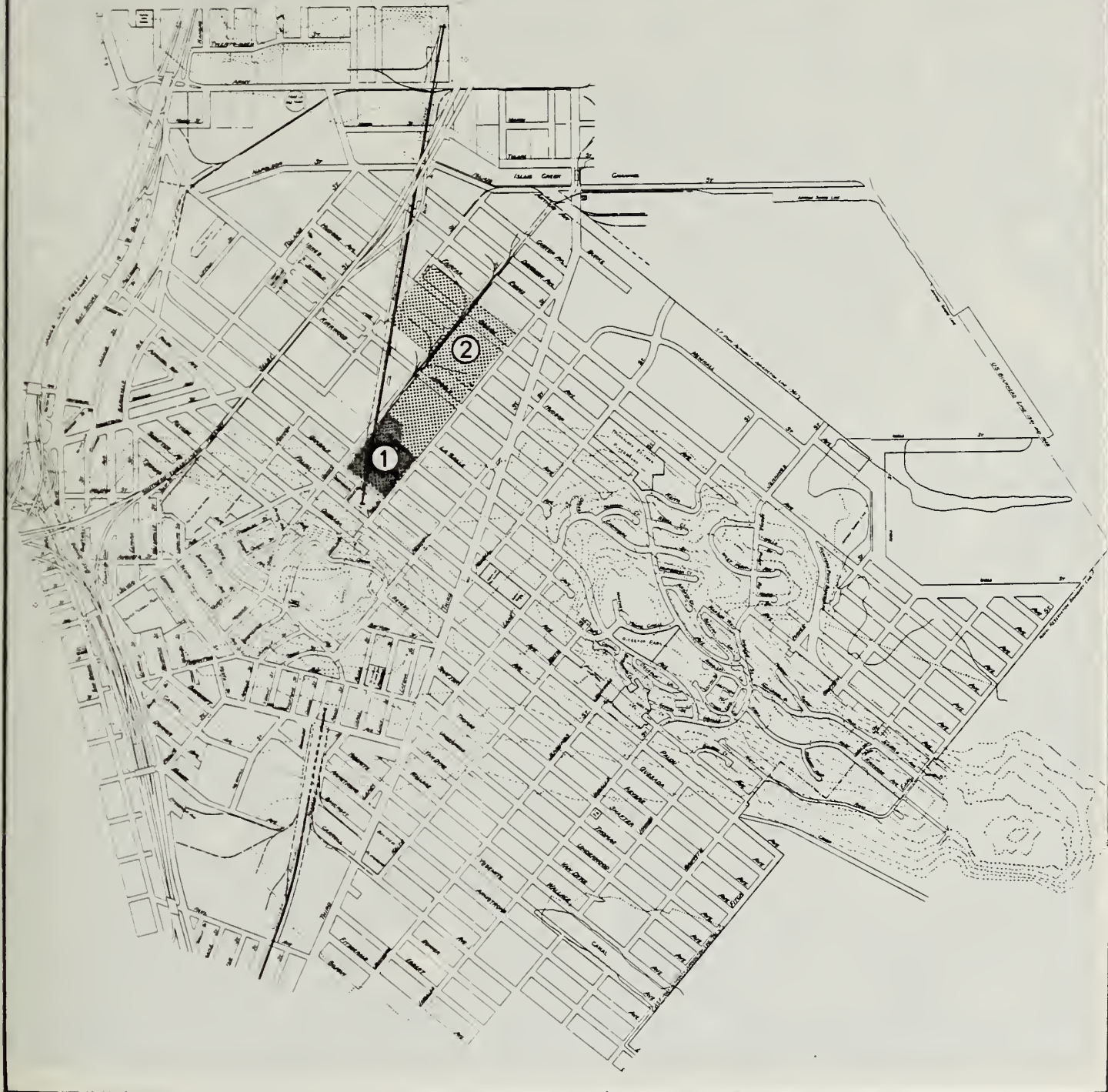
- Description of site conditions and characteristics as documented in Chapter 3.
- Alternatives, including development and assessment of preliminary options and the screening of these alternatives as documented in Chapter 4.
- Plan Selection, including evaluation and ranking of final alternatives, description of the public participation process and description of the preferred plan, as documented in Chapter 5.
- Preliminary Design and Cost estimates, including cost estimates of structures and equipment, operating costs, space requirements and site plan as documented in Chapter 6.
- Arrangements for implementation, including institutional responsibilities for plan operation, implementation steps, operation and maintenance and financial requirements, as documented in Chapter 7.

STUDY AREA

The Study Area is identified in Exhibits 1 and 2. It is bounded by Army Street and the San Francisco Bay to the north, the James Lick Freeway to the west, San Francisco Bay and the U. S. Naval Shipyards to the east and Candlestick and Bayview Park and Jamestown Avenue to the south. The area had an estimated residential population of 27,000 in 1975. The Study Area is predominantly residential with the exception of substantial commercial and industrial uses along Third Street with new commercial port and business development planned for the Bayfront to the southeast and the Candlestick Bayview Park area to the south.

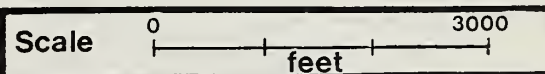
TREATMENT PLANT EXPANSION IMPACTS

An Environmental Impact Report was prepared by the City and County of San Francisco on the environmental effects of proposed developments near the Southeast Treatment Plant Facility. The final draft of this report was published



LEGEND:

- ① PROJECT SITE
- ② SOUTHEAST TREATMENT PLANT



**COMMUNITY FACILITY
AT THE SOUTHEAST
TREATMENT PLANT**

**JEFFERSON ASSOCIATES
CURTIS ASSOCIATES
ISHIMARU O'NEILL & SIMMONS**

STUDY AREA

EXHIBIT 1



LEGEND:

- ① PROJECT SITE
- ② SOUTHEAST TREATMENT PLANT



**COMMUNITY FACILITY
AT THE SOUTHEAST
TREATMENT PLANT**

**JEFFERSON ASSOCIATES
CURTIS ASSOCIATES
ISHIMARU O'NEILL & SIMMONS**

**SITE ORIENTATION
(AERIAL VIEW)**

EXHIBIT 2

in March 1977¹. This report identified a number of adverse impacts of proposed development actions. The identified impacts are summarized below.

Short-Term Effects of the Treatment Plant

Implementation of the planned project would cause:

- Short-term interference with automobile traffic flows.
- Increase in exterior noise levels for certain (nearby) residences.
- Utilities' disruptions and relocations.
- Increases in emissions and pollutants due to the use of internal combustion and diesel engines in the construction process.
- Increases in airborne dust particles due to demolition and spoils removal.

Long-Term Effects

The Environmental Impact Report identified several long-term environmental effects of the planned development.

Relocation

The planned development would require the relocation of seven private businesses, principally auto dismantlers, and the relocation of one residence.

Relocation of City Facilities

The proposed project would require relocation of three City-owned uses. These are (1) the sand lot on the north side of Newcomb Avenue at Quint Street, formerly owned and used by the San Francisco Water Department, (2) the parcel formerly occupied by the asphalt plant of the Department of Public

¹ City and County of San Francisco, Environmental Impact Report, Final Draft, Land Use Changes and Drill Track Relocation Near the Southeast Treatment Plant, San Francisco Wastewater Master Plan Implementation, Project III, March 1977.

Works at the western corner of Jerrold Avenue and Quint Street; (3) the City Purchaser's yard and shops formerly located at the northern corner of Jerrold Avenue and Quint Street.

Mitigation Measures Proposed to Minimize Impacts

The Environmental Impact Report identified mitigation measures which would be employed to minimize short-term impacts of the treatment plant expansion activities. In addition, it identified relocation assistance funds that are available to mitigate long-term relocation impacts.

Other Significant Impacts

Responses of members of the Bayview Hunters Point community to the planned expansion of the Southeast Treatment Plant facility suggest that there may be certain adverse environmental effects of the proposed treatment plant expansion that have not been identified in the Environmental Impact Report findings summarized above. Responses of community members suggest that the plant affects the community's perception of the area and that expansion of a sludge treatment facility within the Bayview Hunters Point community represents, for some residents, a degradation of the social and psychological desirability of the area. A list of hypothesized impacts of the proposed treatment facility expansion follows. These impact areas reflect the concerns expressed to date by some members of the Bayview Hunters Point community.

Social Effects

Community residents assert that an expanded sewage treatment facility developed for the processing of the solid waste for all the eastern portion of the City of San Francisco represents a degradation or lowering of the desirability of the surrounding Bayview Hunters Point community. In turn, the presence of the expanded facility may influence, in an adverse way, the self-conception of the community among members. External public opinion as to the desirability of the community may also be expected to experience a diminution of positive images as a result of the treatment plant facility expansion. The handling of solid human wastes is a subject matter of social taboo and no matter how efficiently treated, is associated in the contemporary folklore with insult and degradation.

Treatment plant expansion is likely, then, to be associated with negative images both for residents of the community and for city residents as a whole.

Visual Effects

The proposed development site is located at the base of a valley basin cradled to the south and the east by hillside residential settlements rising from the valley basin to elevations of about 200 feet. The site is highly visible from these elevated residential locations as well as from residences located contiguous to the present plant northeast of Quint Street. Parts of the proposed site are visible from elevations above 25 feet within a visual setting of varied and vivid views of bayside industry, the San Francisco Bay, the East Bay hills and the Bay Bridge to the east end of the City and Mt. Sutro to the northwest. Because of the varied visual form from elevations at 100 feet, the planned development will clearly affect the visual panorama and visual form for residential locations at the crest of settlements to the south and to the east.

Economic Effects

The economic desirability of particular residential locations is an interplay of diverse factors including present land and housing values, the quality of community services, images of the residential community and perceived economic desirability of residential properties located within close geographic proximity to the treatment plant facility. Treatment plant expansion may negatively affect the economic desirability of residential locations adjacent to the plant.

Perceived Impacts

Table 1 documents community household survey responses on community perceptions of the effects of the sewage treatment plant expansion.

Approximately 16% of the respondents expressed the expectation of a lowering of air quality related to the plant expansion. Many of these responses included references to the smell or odor from the treatment plant. With the exception of census tract 609, the

TABLE 1

EFFECTS OF SEWAGE PLANT ON COMMUNITY
(Figures in Percentages)

EFFECTS	CENSUS TRACT						TOTAL
	230	231	232	233	234,610	609	
Cleaner Air	9.3	9.2	3.8	0	0	0	6.4
More Polluted Air	9.3	17.4	17.3	62.5	18.4	35.0	16.0
More Jobs	10.7	12.8	9.6	12.5	18.4	0	12.5
Help City/Community	9.3	14.7	13.5	0	2.6	20.0	9.9
Bad for Bay	0	1.8	1.9	0	2.6	0	1.3
Raise Taxes	2.7	5.5	3.8	0	7.9	10.0	4.5
Locate Elsewhere	1.3	3.7	0	0	2.6	5.0	2.0
Improve Storm Drainage	0	0	1.9	0	0	0	.3
Dirt on Streets	1.3	1.8	1.9	0	0	0	1.3
Don't Know	36.0	25.7	38.5	25.0	39.5	20.0	33.9
None	13.3	3.7	5.8	0	5.3	10.0	7.8
Other	6.7	3.7	1.9	0	2.6	0	4.2

tract where the plant is located, reports were also made of expected employment benefits from the plant, i.e., provision of "more jobs." Twelve percent of the responses indicated expectations of increased employment opportunities in connection with treatment plant expansion. Other positive responses indicated the expectation that the community or the city would benefit from improved wastewater facilities. About 10% of the responses fall in this category.

Reports of positive benefits, e.g., helping city/community, and negative effects, i.e., expected lowering of air quality, are both more likely to occur in areas closer to the expanded facility (i.e., census tracts 609 and 231) than in areas further removed from the treatment plant site. Also, within these areas, particularly within tract 609 where the facility is located (see Exhibit 3), there was the greatest expression of negative sentiments concerning the treatment plant expansion.

Responses to questions on the effects of treatment plant expansion provide the clearest indication of community expectations of the effects of plant expansion. In general, the expressed community opinions on the effects of the plant expansion correspond with the hypothesized social, economic and public safety effects of the expansion. However, public concern with the odor of the present and expanded treatment plant operations is the most salient of the perceived negative effects of the sewage plant.



LEGEND:

- ① PROJECT SITE
- ② SOUTHEAST TREATMENT PLANT



Scale 0 4000
feet

COMMUNITY FACILITY
AT THE SOUTHEAST
TREATMENT PLANT

JEFFERSON ASSOCIATES
CURTIS ASSOCIATES
ISHIMARU O'NEILL & SIMMONS

CENSUS TRACT MAP

EXHIBIT 3



Existing Conditions

II. EXISTING CONDITIONS

STUDY AREA DESCRIPTION

The Study Area as identified in Exhibits 1 and 2 encompasses the Bayview Hunters Point community. It is bounded by Army Street and the San Francisco Bay to the north, the James Lick Freeway to the west, San Francisco Bay and the U. S. Naval Shipyards to the east and Candlestick and Bayview Park and Jamestown Ave. to the south. The area had an estimated population of approximately 27,000 in 1975. The Study Area is a predominantly residential one with the exception of substantial commercial and industrial uses following Third Street to the west with new commercial port and business developments planned for the Bayfront to the southeast and the Candlestick Bayview Park area to the south.

Community Profile

The Bayview Hunters Point community has major industrial and residential sections with transition areas that have both industry and homes.

Five of the six census tracts in the Study Area have a significant number of residential units. In four of the census tracts, single family homes are predominant. In the other tract, census tract 231, HUD 236 housing and public housing units predominate.

The shipyard and the meat packing industry in Butchertown (the present location of India Basin Industrial Park) and their suppliers were formerly the major source of employment in the area. During the early 1960's the employment at the shipyard was 30,000 persons. Only 1500-2000 employees remain at the shipyard facility and the major meat packing companies have left the area. However, the new industrial and residential developments discussed below will provide some new employment opportunities for Bayview Hunters Point residents. At present, the area has a high percentage of households with incomes below the poverty level.

Description of Socio-Economic Characteristics of the Population

The population of the Study Area and San Francisco have both steadily declined since 1950. Between 1970 and 1975 the State Department of Finance estimated that the popula-

tion of San Francisco declined 6.7% and it is estimated that the population of the Study Area declined 9.7% by taking into account the housing demolition and construction in the area. There are now about 27,000 persons in the Study Area. Exhibit 4 provides a graphic comparison of the socio-economic characteristics of the Study Area to the City as a whole.

As shown in Exhibit 4, over 70% of the Study Area population is Black as compared with 12% of the City's population. There is almost twice as high a percentage of youth (6 - 18 years of age) as in the City as a whole. The education for adults 25 years of age and older is 11.2 years in the Study Area versus 12.4 years for the City. The percentage of high school graduates is 38% for the Study Area and 61% for the City. The area has almost twice as many households with incomes at or below the poverty level than the City as a whole. About 40% of the families have incomes at three times poverty level while the City-wide average is almost 70%. About one and one-half times as many families are headed by females than in the City-wide population. The Study Area has a higher percentage of homeowners than the overall City average. Of the total acreage that has been designated by the City for public housing, almost 50% is included within the Study Area. The median number of rooms per household and the persons per household is larger in the Study Area than in the City in general.

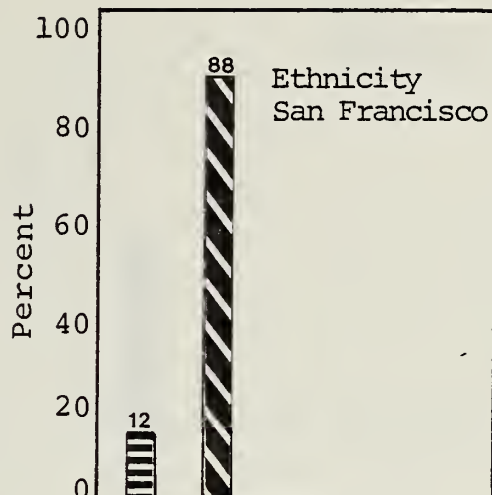
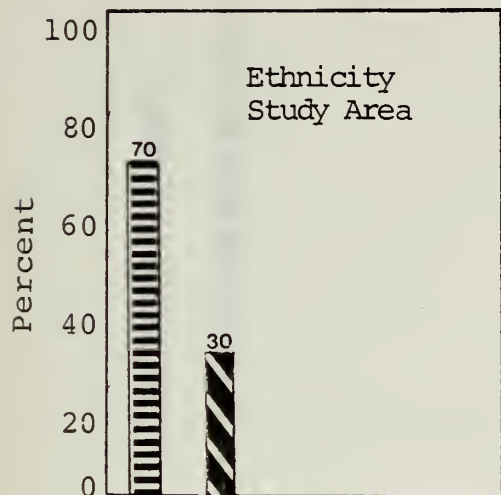
During the census year, 1969, the positions held by residents 16 years of age and older showed that the Study Area workers were more likely to be employed in service and blue collar jobs and less likely to be employed in white collar jobs than workers in the City.

In general, the Study Area population is less educated, has more children, fewer senior citizens, lower household incomes, and is more likely to be employed in blue collar and service jobs than in white collar jobs when compared to the population of San Francisco as a whole.

Employment Growth Areas

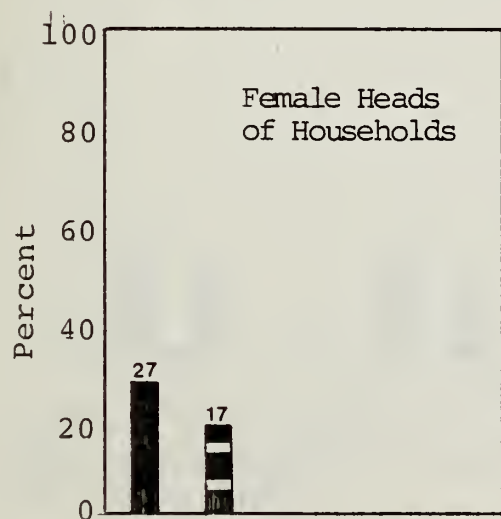
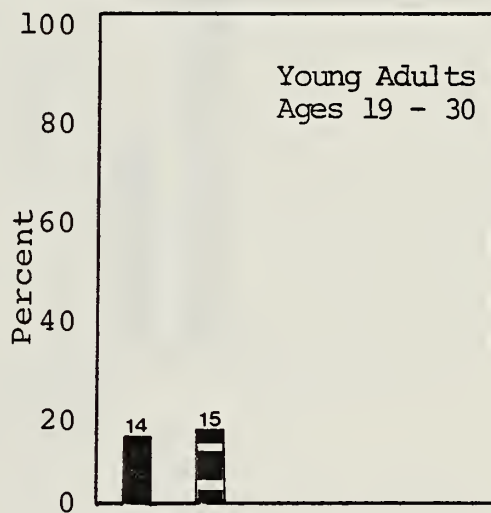
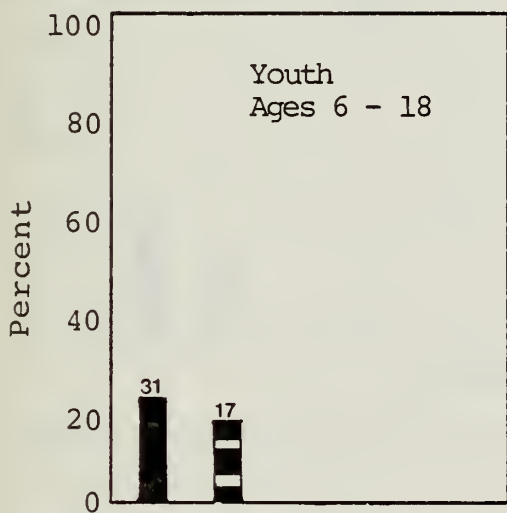
Projections on employment growth areas are determined through an analysis of job openings and job seekers in a range of occupations for the period 1978 to 1985. These projections are based upon data collected by the State Employment Development Department. Job growth areas are those occupations where the number of new openings is expected to exceed the number of applicants

SOCIOECONOMIC CHARACTERISTICS: STUDY AREA AND SAN FRANCISCO



Black

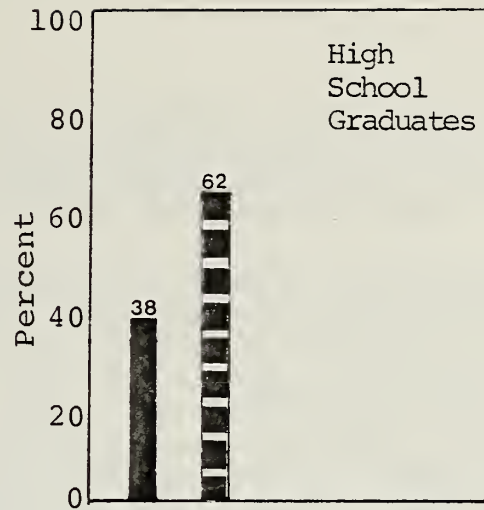
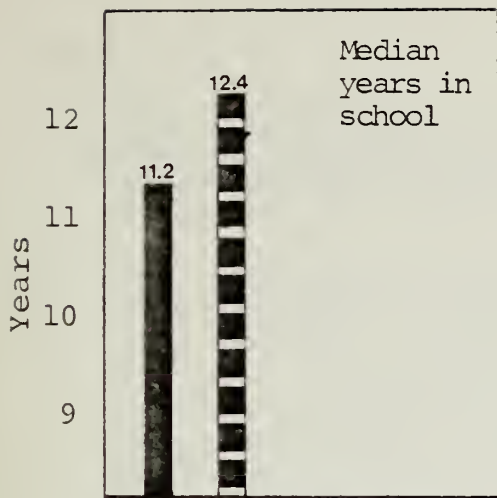
White



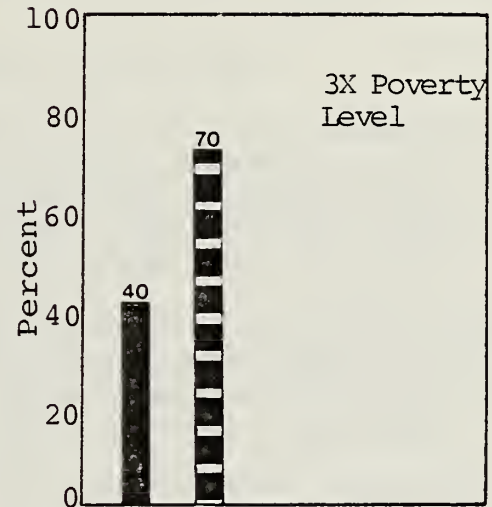
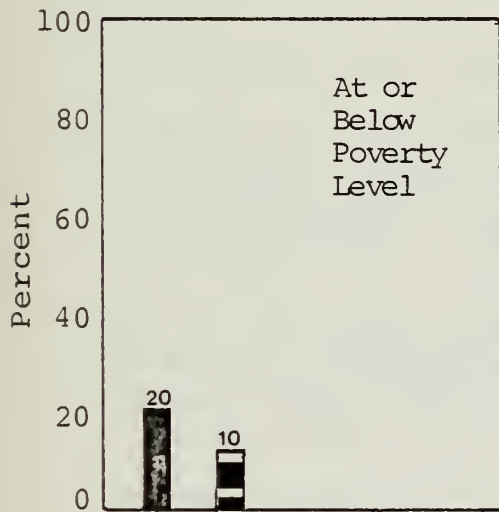
Study Area

San Francisco

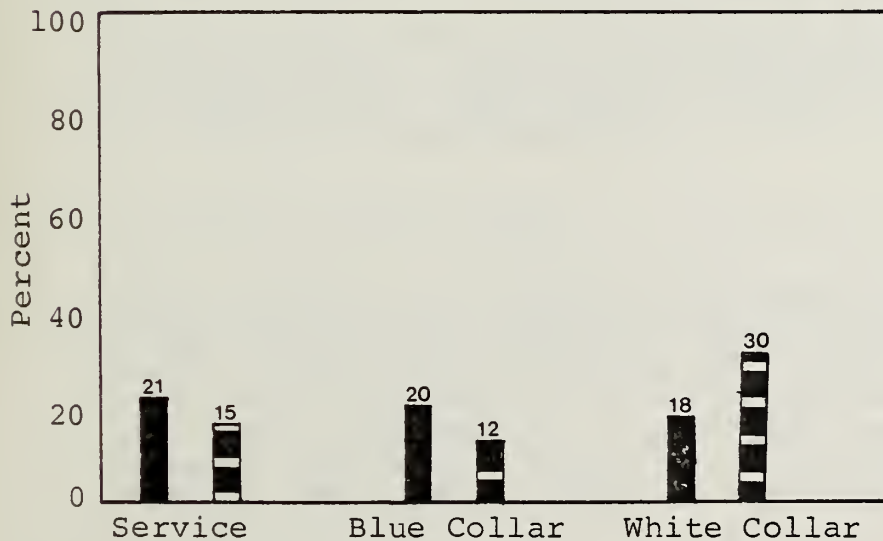
EDUCATION



INCOME



OCCUPATIONAL PROFILE



Study Area

San Francisco

Source: U.S. Bureau of the Census, Census of Population and Housing: 1970 CENSUS TRACTS, Final Report PHC (1)-189 San Francisco-Oakland, California SMSA.

for new positions within those occupations. Job openings reflect the need for replacement of the existing work force and the creation of new employment positions because of growth in a particular industrial employment area.

The employment areas which have been analyzed to determine growth occupations do not require graduation from a four-year college. In most cases they require a six month to two year training period in a junior college, vocational program or apprenticeship program. The selected occupational areas and their training requirements are the best potential employment growth areas for job seekers with the experience and education profiles suggested by the present composition of the Bayview Hunters Point workforce. Within the five county Bay area, identified growth occupations have been limited to those with 100 or more job openings per year.

Five County Bay Area Job Growth Projections

Service and white collar occupations show the greatest employment prospects. In the service category, the following occupations show above average job opportunities: cleaning, health, dental assistant, health aide, nurse's aid, orderlies, practical nurse and personal services.

White collar employment possibilities are best for buyers, salesmen, loan managers, building managers, superintendents, sales workers, retail clerks, service and construction salesmen, clerical and office machine operators.

There are very little or no job opportunities for blue collar craftspeople although dressmakers, seamstresses and stitchers have higher than normal prospects.

The following type of technicians will have good job opportunities: science and health technicians, clinical lab technicians, radiological workers, dental hygienists and computer system analysts.

Job Growth Projections

Major existing and proposed developments within the Bayview Hunters Point area will require substantial commitment of construction workers and provide limited new employment opportunities for clerks, freight handling and traffic management, longshoremen, warehousemen, metal workers, machinists, cooks, and office and commercial workers. Employment prospects might expand, under con-

ditions of new training and recruitment and affirmative action programs, which would insure that a larger than projected segment of new employment positions would be made available to Bayview Hunters Point residents.

However, the five county employment projections which are based upon regional economic growth projections seem to indicate that most of these "new" employment positions are likely to be taken by workers who are already members of the work force in these particular occupational areas.

The area-wide projections imply that without new training and entry programs substantial competition exists among the present work force for new employment positions related to planned developments in the Study Area.

ENVIRONMENTAL CONDITIONS

Geology and Topography

The geology of the San Francisco Bay Region consists primarily of a dense Franciscan shale, sandstone and chert bedrock at least 150 million years old. This material is overlain in the lower coastal areas by Quaternary dune sands and clays generally less than 3 million years old. The greater portion of the project site is underlain principally by sand. Immediately to the north is a boundary marking an area where artificial fill has been placed since about 1890 when the area was a small embayment and tidal marsh. Bedrock is exposed in the hills south of the site.

Two active faults lie within 10 miles of the project site. The San Andreas lies within 8 miles to the west of the Pacific Ocean, and the Hayward fault lies 10 miles to the east. At least five significant earthquakes have affected the San Francisco regional area by movements on the San Andreas in the last 135 years².

The Study Area topography is predominantly flat, leading from the San Francisco Bay water level up to the three hills included in the Study Area. Southeast of the project site is a 150 foot hillside, directly east is a 250 foot hill and immediately south is Mt. Joseph at 250 feet.

² Environmental Impact Report and Statement, San Francisco Wastewater Master Plan, Geology Section, City and County of San Francisco, 1974.

Climate

The climate of San Francisco is moderated by its location on the Pacific Ocean, the Golden Gate and San Francisco Bay. Classified as a Mediterranean type, the climate of San Francisco has two major seasons, a dry summer and rainy winter. Although the dry season, extending from May through October, may be without rain, persistent stratus cloud layers normally continue into September, allowing relatively few warm, sunny days. The warmest annual temperatures generally occur from late September through October when the intense marine influence typically diminishes. Maximum temperatures in September and October average in the upper 60's Fahrenheit (°F.) in San Francisco, but several days with the temperatures in the 80's (°F.) or above are also common each year. Nights in September and October are generally cool to the mid 50's (°F.) with daily minimum temperatures in the low to mid 40's (°F.). Freezing temperatures rarely occur.

Rainfall

The semipermanent high pressure center known as the eastern Pacific High controls the yearly pattern of rainfall in much of California. The Pacific High deflects storms to the north in summer, and its weakening and movement south in winter marks the beginning of the rainy season. In San Francisco 90% of the average yearly rainfall (approximately 22 inches) occurs in the six month period from November through April.

Wind

Winds during most of the year are from a westerly to northwesterly direction in San Francisco and the Study Area.

During the spring and summer months air currents are characterized predominantly by westerly flows. This trend changes to a predominantly northwesterly flow in the fall and a south to southeasterly flow in the winter.

The average annual wind speed at the Federal Building in San Francisco is approximately nine miles per hour (mph), although summertime winds average approximately 11 mph and wintertime about 7 mph. In the Study Area

average wind speeds are probably somewhat lower than the speeds measured at the Federal Building, as the wind monitoring instruments on top of the Federal Building are less influenced by the frictional effects of ground level vegetation and obstruction structures. Wind directions in the Study Area are also locally altered in the immediate vicinity of structures.

Air Quality

Air quality at the project site is dominated by its proximity to the San Francisco Bay, as well as the typical topographical conditions and air currents which generally disperse pollutants southward and northward through the Golden Gate. Data for 1976 and 1977 at the air monitoring station closest to the project site (23rd Street) indicate that federal and state air quality standards are rarely exceeded.

Table 2 identifies the ambient air quality for the five primary air pollutant categories at the 23rd Street air monitoring station on Potrero Hill.

TABLE 2

SUMMARY OF 1976 AND 1977 AIR QUALITY MONITORING RESULTS AT THE 23RD STREET AIR MONITORING STATION

Air Pollutant	Averaging Time	Year	Maximum Level	Number of Excesses
Oxidant (ppm)	1 hour	1977	0.06	0
		1976	0.10	2
CO (ppm)	8 hour	1977	10.0	3
		1976	10.6	3
	1 hour	1977	16.0	0
		1976	17.0	0
NO ₂ (ppm)	1 hour	1977	0.18	0
		1976	0.21	0
	Annual	1977	0.038	0
		1976	0.042	0
SO ₂ (ppm)	24 hour	1977	0.013	0
		1976	0.038	0
	Annual	1977	0.0027	0
		1976	0.0041	0
TSP ($\mu\text{g}/\text{m}^3$)	Annual	1977	56.0	0
	Geometric Mean	1976	62.0	0

Source: Bay Area Pollution Control District

Land Use

Zoning

Two types of zoning districts govern the land use allowed within San Francisco:

1. Use Districts, regulating the type of development allowed³.
2. Height and Bulk Districts, district areas which "overlay" the use districts and regulate building size and mass within particular zones of the city⁴.

The community facility site is located in an area designated M-1 light industrial. The surrounding residential areas to the south and southwest of the community facility are zoned RH-1 and RH-2. Under the newly adopted San Francisco Residential Zoning Plan, RH-1 designates one-family housing with one dwelling unit per lot, and RH-2 designates one-family and multiple-family housing up to two dwelling units per lot with permitted use of horticulture or passive recreational facilities, public structures or non-industrial structures. The Study Area is located in a 40-X Height and Bulk District where building height limits are 40 feet and bulk limits are not applicable.

Master Plan Objectives

Any plans to develop the City of San Francisco land are written as referrals to the City Planning Department where they are reviewed individually in accordance with the City's Master Plan. However, the Master Plan Referral determination made by the City Planning Commission has no legal authority. It is strictly an advisory opinion issued by the City Planning Department to any implementing agency of the City. There is no appeal from its determination, since there does not need to be. Only zoning decisions by the Zoning Administrator can be appealed to the Board of Permit Appeals. Conditional uses, for which the City Planning Commission itself is the approving agency,

³ Residential District Zoning Map, San Francisco Department of City Planning, City and County of San Francisco.

⁴ Height and Bulk District Zoning Map, San Francisco Department of City Planning, City and County of San Francisco.

may be appealed to the Board of Supervisors only. In the case of the Southeast Community Facility which we are proposing a zoning decision would be required and a Master Plan referral.

Given the zoning of the site and the predominant light and heavy industrial uses to the north of the site, Planning Department zoning approval could likely be acquired for a wide range of community facility development options.

Major Existing and Proposed Developments Within Bayview Hunters Point

The following existing and proposed development projects indicate the areas of new commercial, industrial and residential growth within the Bayview Hunters Point community. These new and proposed development projects constitute the major new land uses and main sources of new employment opportunities within the Bayview Hunters Point area.

The India Basin Industrial Park, Yerby Office Park and the Port of San Francisco Coal and Container Facilities provide the major new long-term employment opportunities within the Bayview Hunters Point community. The India Basin Industrial Park is expected to provide a net gain in full time employment positions of 4,000 jobs.

Project	Land Use Type	Characteristics
Hunters Point Naval Shipyard	Industrial	Leased by Triple A Company. Approximately 2000 employees in ship conversion and repair. Another 300 acres vacant and available for future development.
The India Basin Industrial Park	Industrial	This development is a 126-acre Industrial Park located between Third Street to the west and the San Francisco Bay to the east in the location of old Butcher-town. New industrial

Project	Land Use Type	Characteristics
(continued)		and commercial development of the park is expected to near completion by 1981-82. By late 1979 the U.S. Postal Service will commence construction of a 750,000 sq.ft. regional mail facility. Other Industrial Park tenants include Morgan Equipment Co., Homestead Ravioli, Western Boiler Control and P.G. & E.
Hunters Point Housing Authority	Residential Rehabilitation	Five projects (1330 total units) planned for rehabilitation: Alice Griffith, 354 units; Harbor Slope, 226 units; Hunters Point, 1-316 units; and Hunters Point, 2-100 units.
Southeast Treatment Plant	Industrial Public Use	Existing plant has 30 mgd capacity and provides low level chemical and conventional primary treatment for sewage flow from Southeast tributary area. Under guidelines of S.F. Wastewater Master Plan, plant will expand to include long-term secondary treatment for Northpoint and Southeast service area.
Bayview North	Residential/Industrial Rehabilitation	Rehabilitation of residential uses east of Third Street and rehabilitation and development of industrial uses west of Third Street.

Project	Land Use Type	Characteristics
(continued)		
Mount St. Joseph	Residential	Approximately 300 units of condominiums are proposed for construction.
Shoreline Park	Parks and Recreation	California Parks & Recreation Commission has recently approved a plan for picnic and camp grounds, boat facilities, fishing piers and community garden plots along four miles of San Francisco Bay shoreline near Candlestick Point.
Yerby Office Park	Commercial	Includes 925,000 sq. ft. of restaurant and offices planned for area southwest of Candlestick Park east of Highway 101.
Port of San Francisco Industrial Pier Development		<u>Pier 94E</u> - An existing bulk coal facility planned for expansion to a container facility of 30 acres.
		<u>Pier 96</u> - An existing public container facility planned for expansion-lash-roro facility. Piers 94E and 96 will accommodate 3 million tons per year.
		<u>Pier 98</u> - a new pier planned as a 48-acre new-bulk and break bulk or container facility.

Community Services

Fire

Fire services are supplied to the site by the San Francisco Fire Department. First response to the site would be from Station 25, located at 3305 Third Street, in approximately four minutes. By code, fire alarms and sprinklers would be installed in all public use buildings on the site to provide maximum fire safety.

Water

There are existing City of San Francisco Water service mains adjacent to the site. There are 8" service mains on Oakdale, Quint, Newcomb and Phelps Streets fed by 16" distribution mains on Third and Newcomb Streets. Water capacity is considered adequate to provide service to the facility site.

Storm and Sanitary Sewers

Sanitary and storm sewers are combined in one system to serve the project site. Four-by-six foot reinforced concrete sewer trunk lines are available on Quint between Oakdale and Newcomb and on Newcomb between Quint and Phelps Streets.⁵ Both of these lines are rated as above 100% adequate. A 12" sewer line is located on Oakdale between Quint and Phelps. However, this line is inadequate and cannot absorb any additional load.

Police

Police services at the site are provided by the San Francisco City Police Department. First response to the site is from the Southeast Station at 20th and Third Streets (about 1-3/4 miles from the site). Response time to major crimes capacity is estimated to be approximately three minutes. For lesser crimes, response time can be as long as ten to twenty minutes, depending on the nature of the crime and the availability of law enforcement personnel.

⁵ Mr. Bill Walsh, telephone call, February 13, 1979, Department of Public Works, City of San Francisco.

Solid Waste

Solid waste disposal service is provided to the site by the Sunset Scavengers Company. The waste is presently transported to a land-fill site in the City of Los Altos.

Gas and Electric

PG&E has feeder lines extending from an existing power plant of sufficient power requirements to serve the project.

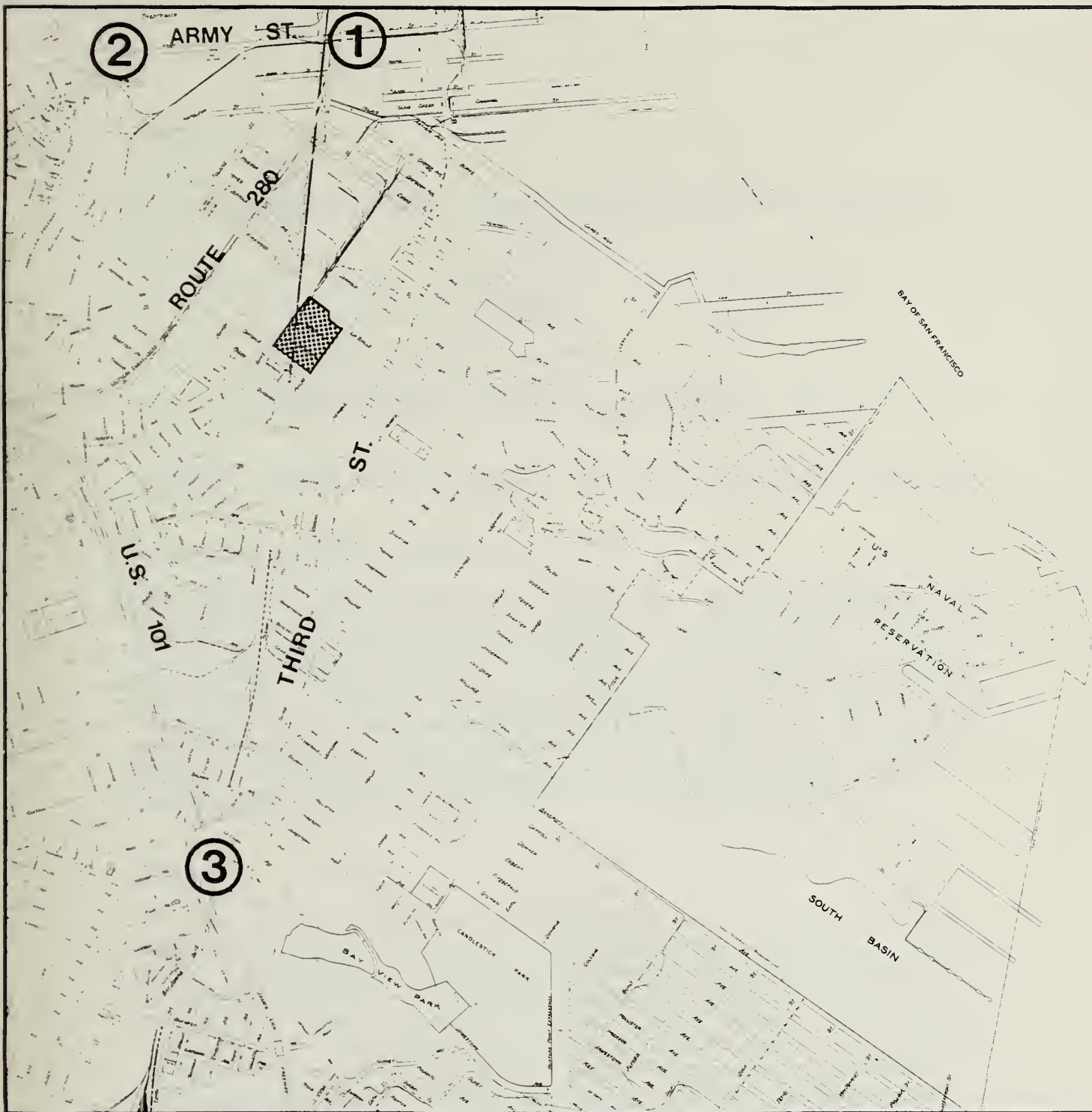
Medical Services

The nearest medical facility is San Francisco General Hospital on 22nd Street and Potrero Avenue, approximately 10 minutes distance by ambulance. City ambulance response time is approximately five to seven minutes from either District Health Center Number 3 on Silver Avenue or the Ambulatory Health Care Center at 5033 Third Street.

Traffic

Primary regional access to the project site is provided via Interstate Route 280 Freeway, with an interchange at Army Street (3/4 mile north of the site), and from U.S. 101, with interchanges at Army Street (1 mile to the northwest) and at Third Street (2-1/4 miles southwest of the site). Exhibit 5 illustrates the location of the site relative to the regional freeway system. Primary local access to the project site is provided via Oakdale Avenue, Third Street and Phelps Street. The site is bordered by the Southeast Treatment Plant on the north and Oakdale Avenue on the south. The eastern boundary, Phelps Street, borders residential land parcels and Quint Street on the west borders a primarily industrial area. McKinnon Street provides access to the project site from both east and west boundaries.

Table 3 indicates the estimated Average Daily Traffic (ADT) on primary access streets in the Study Area.



LEGEND:

1. Route 280 and Army St. Intersection
2. U.S. 101 and Army St. Intersection
3. U.S. 101 and Third St. Intersection



- PROJECT SITE



SCALE



**COMMUNITY FACILITY
AT THE SOUTHEAST
TREATMENT PLANT**

FREEWAY ACCESS

EXHIBIT 5

TABLE 3

ACTUAL 24-HOUR TRAFFIC FLOW OF PROJECT ACCESS ARTERIALS
(1974-76)

Street	ADT
Oakdale (at 280 Freeway)	6,251
Third Street (at Ilais Creek)	20,244

Source: Department of Public Works, City of San Francisco

Existing Transit Service

The project site is approximately 2-3 blocks from the #15 bus on Third Street which travels on scheduled headings of 5-10 minutes during the daytime. The project site is also presently served by the #51 Silver Avenue bus which travels on a route spur along Palou Street 1-2 blocks from the site. It must be noted, however, that the #51 bus is not presently in the recommended five-year MUNI Transit Plan⁶. However, MUNI plans for future operations are still under review and subject to reformulation.

Noise

The ambient noise level in the area surrounding the community facility site was estimated at 60 decibels (L_{dn})⁷ in 1974. Residential arterials surrounding the project site were estimated to have noise levels of approximately 65 decibels. Study Area arterials, Third Street and Evans Street, were identified as having noise levels of approximately 75 decibels/ L_{dn} while Oakdale and Palou Streets were estimated at 70 decibels/ L_{dn} . These roadway noise estimates represent noise levels 50 feet from the center of the roadway on both sides of the street⁸.

⁶ Wilbur Smith and Associates, San Francisco MUNI Transportation, Operations and Marketing Study, June 1977.

⁷ L_{dn} represents the energy average of the noise level over a 24-hour period with a weighting factor of 10 decibels added to the nighttime noise level.

⁸ Bolt, Beranek and Newman, Inc., Noise in San Francisco, July 1974.

Ambient noise levels in other residential areas of San Francisco were estimated to range between 55 and 60 decibels (L_{dn}) with 60 decibels being the dominant mode. In this respect, the project area is typical of the noise environment in other sections of the city. But primary local access roads, Third Street, Oakdale Avenue and Evans Street have above average noise levels reflecting their use as primary access arterials.

Exterior noise compatibility guidelines for various land uses are shown in Table 4. These guidelines have been established by EPA to provide direction in noise impact assessment of sensitive land uses and to coincide with the City of San Francisco's noise guidelines.

TABLE 4

LAND USE NOISE COMPATIBILITY GUIDELINES

Land Use Category	L_{DN} Value in Decibels							
	55	60	65	70	75	80	85	90
Residential		-----	-----	-----	-----	-----	-----	-----
Hotel, Motels		-----	-----	-----	-----	-----	-----	-----
Schools, Hospitals, Churches			-----	-----	-----	-----	-----	-----
Playgrounds				-----	-----	-----	-----	-----
Office Buildings			-----	-----	-----	-----	-----	-----
Commercial				-----	-----	-----	-----	-----
Industrial				-----	-----	-----	-----	-----

———— Satisfactory

----- Noise insulation should be included in design

..... New construction should be discouraged

ORGANIZATIONAL CONTEXT

Figure 6 depicts the organizational approval process necessary for funding and permit approval of a community facility at the Southeast Treatment Plant. The first phase of the approval process involves submission of a Step 1 conceptual plan and an environmental evaluation of the effects of the proposed plan to the State Water Resources Control Board (SWRCB) and the City Office of Environmental Review (OER). The community facility development has already been identified as being eligible for a negative declaration, i.e., a judgement of no significant adverse environmental effects⁹.

OER review of the environmental evaluation of the facility serves as the basis for environmental approval of the plan by the City of San Francisco. SWRCB review serves as the basis for plan approval of the conceptual plan and determination of the plan's eligibility for project funding.

The second phase of the project approval process involves acceptance of a Clean Water Grant from the State Water Resources Control Board by the San Francisco Board of Supervisors. The Board must agree to receive a Clean Water Grant for the Federal and State share of design and construction costs. Also, Board approval usually involves agreement by the Board to authorize the use of sewer bond funds for the city's local share of capital grant funds from the state. Acquisition of the approximately 1.1 acres of land of the 7 acre parcel to the southwest of the Southern Pacific tracts must also be completed.

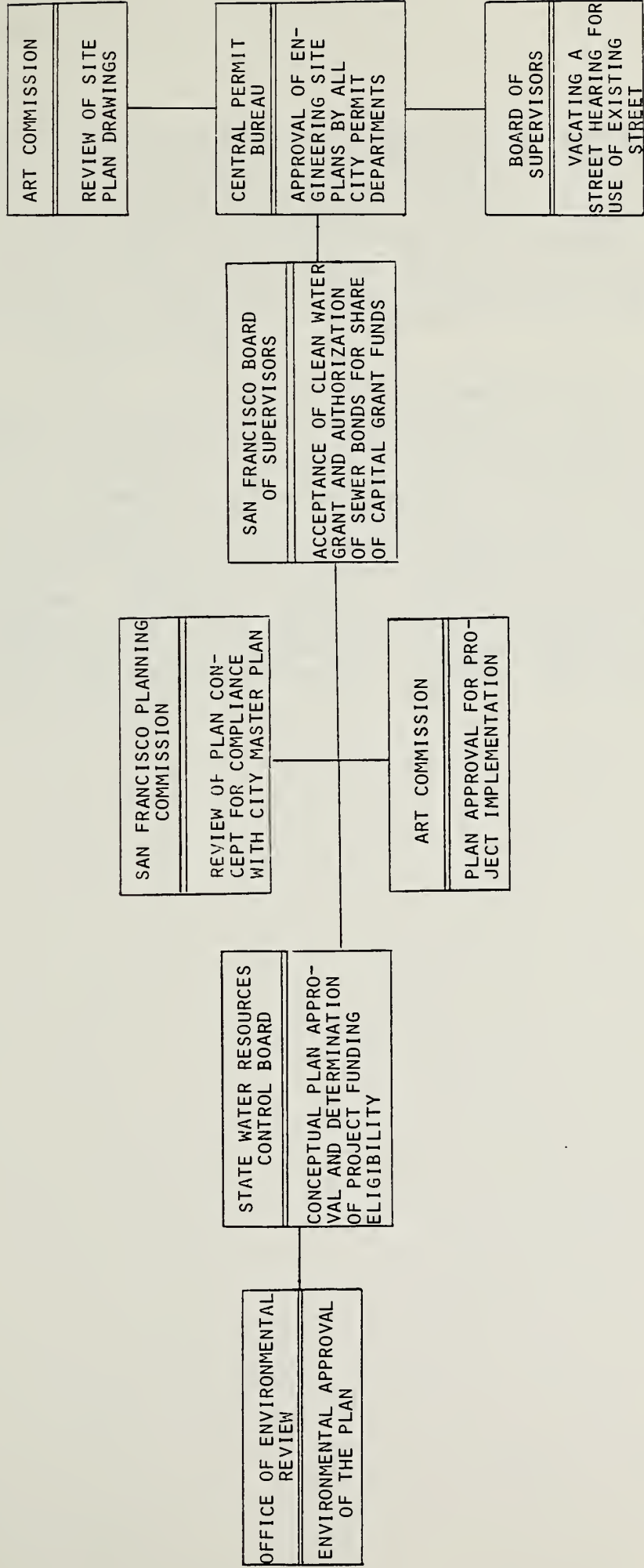
In Step 3 the concept plan is reviewed by the Planning Commission under a Master Plan Referral (MPR). All uses of City-owned land must be reviewed for compliance with the City Master Plan. Legally, this Master Plan compliance assessment is an advisory ruling.

During Step 3 the concept plan must be reviewed by the Art Commission. Art Commission approval is necessary for the initial plans during Step 4 and for approval of implementation of a project.

⁹ City and County of San Francisco, Environmental Impact Report, Final Draft, Land Use Changes and Drill Track Relocation Near the Southeast Treatment Plant, San Francisco Wastewater Master Plan Implementation, Project III, March 1977.

EXHIBIT 6

ORGANIZATIONAL APPROVAL PROCESS FOR THE
COMMUNITY FACILITY AT THE SOUTHEAST TREATMENT PLANT



Following a positive approval of the plan by the Master Plan Referral process and the Art Commission, the permit procedure moves to the fourth step of the approval process. Under this final phase of approval, engineering site plans for the project area are forwarded to the Central Permit Bureau which in turn forwards the plans for approval to all permit agencies of the city. These plans must also be reviewed by the Art Commission for consistency with the original conceptual plan.

Also during Step 4, the San Francisco Wastewater Program must request a "Street Vacating" hearing with the Board of Supervisors if use is to be made of Newcomb Street as land area for the community facility. Use of Newcomb Street for plan development would also require a Master Plan Referral from the City Planning Commission and approval by the City Department of Public Works concerning any access restrictions to the water and sewer mains which run under Newcomb Street. McKinnon Street, presently identified as an unaccepted street, has neither sewer nor water mains between Phelps and Quint Streets, so that Public Works approval for the "Street Vacating" process would be relatively easy to achieve.



Site Conditions

III. SITE CONDITIONS

SITE CHARACTERISTICS

Site Description

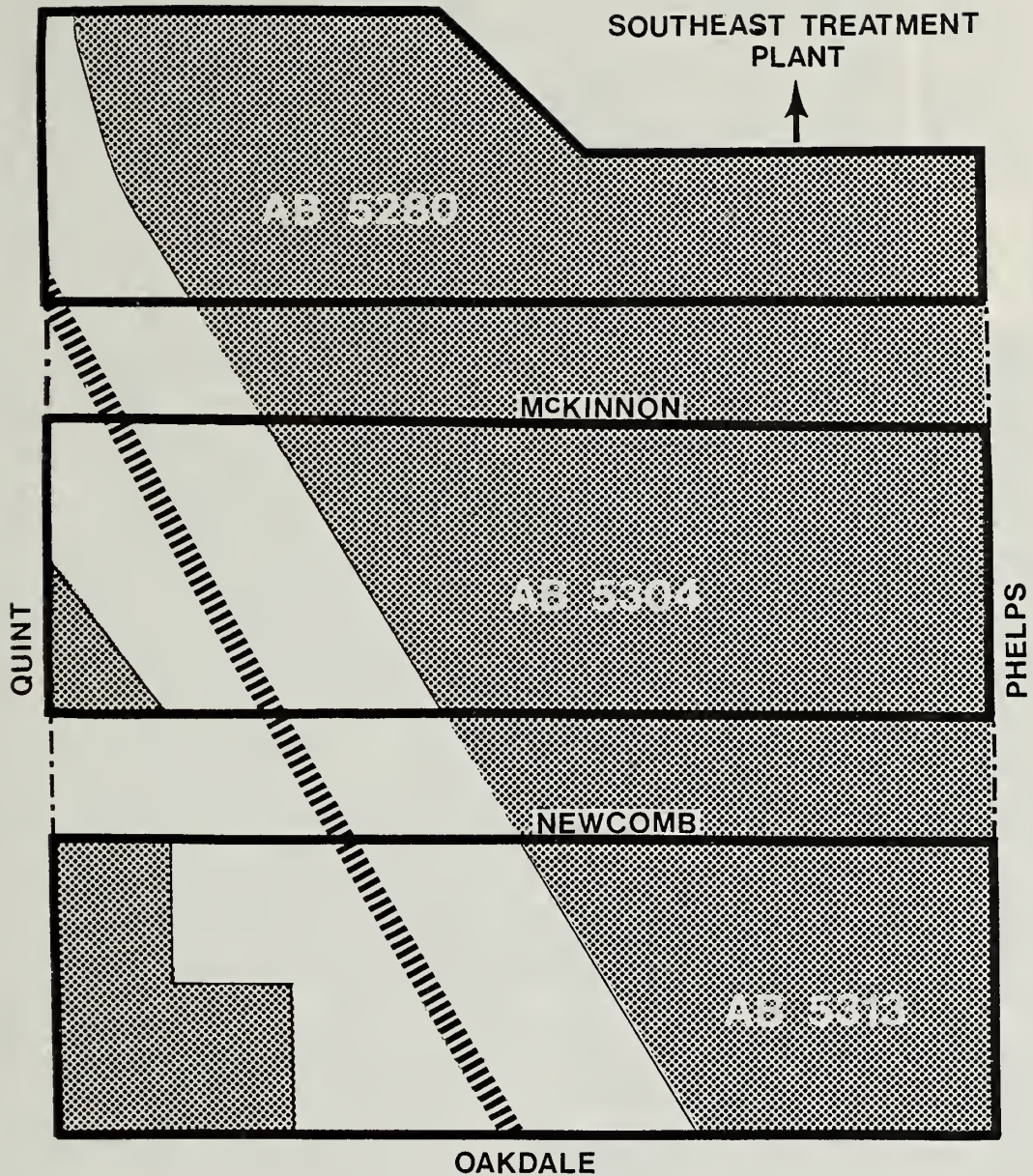
The proposed site for the Southeast Treatment Plant Community Facility is approximately 7 acres. It is bounded by Phelps Street on the southeast, Oakdale Avenue on the southwest, Quint Street on the northwest and on the northeast by existing 3 acre Sewage Treatment Plant. The site location is identified in Exhibits 7 and 8.

Present Uses






It is important to note that a portion of this rectangular parcel of land accommodates the Southern Pacific Railroad tracks that emerge from a tunnel one-half block south of the site, cross under Oakdale, and then cross the northwestern corner of the land parcel. These tracks diagonally divide the rectangular project site into two parcels. The southwestern triangular parcel, considerably smaller than the adjacent parcel (Assessor's Block 5313), is presently occupied by C&H Auto and Truck Painting and Harold's Auto and Truck Repair. In addition, the parcel contains three small wood frame houses bordering on Oakdale Avenue, one of which appears to be occupied. The larger section of the project site is presently owned by the City. Part of the larger section is used by the San Francisco Water Department for sand and asphalt storage, Elkhorn Towing and Storage and Phil Lift Equipment Company. However, both of the latter businesses are being relocated to other San Francisco locations. The industrial building formerly occupied by Phil Lift Equipment Company is presently used by the prime contractor for the Southeast Treatment Plant for equipment storage during the construction of the new treatment facility. This structure, approximately 16,000 square feet, has a concrete perimeter and concrete slab foundation and includes internal hoist and lift equipment.

Vegetation

The only vegetation on the project site is a row of mature cypress and eucalyptus trees on the smaller triangular

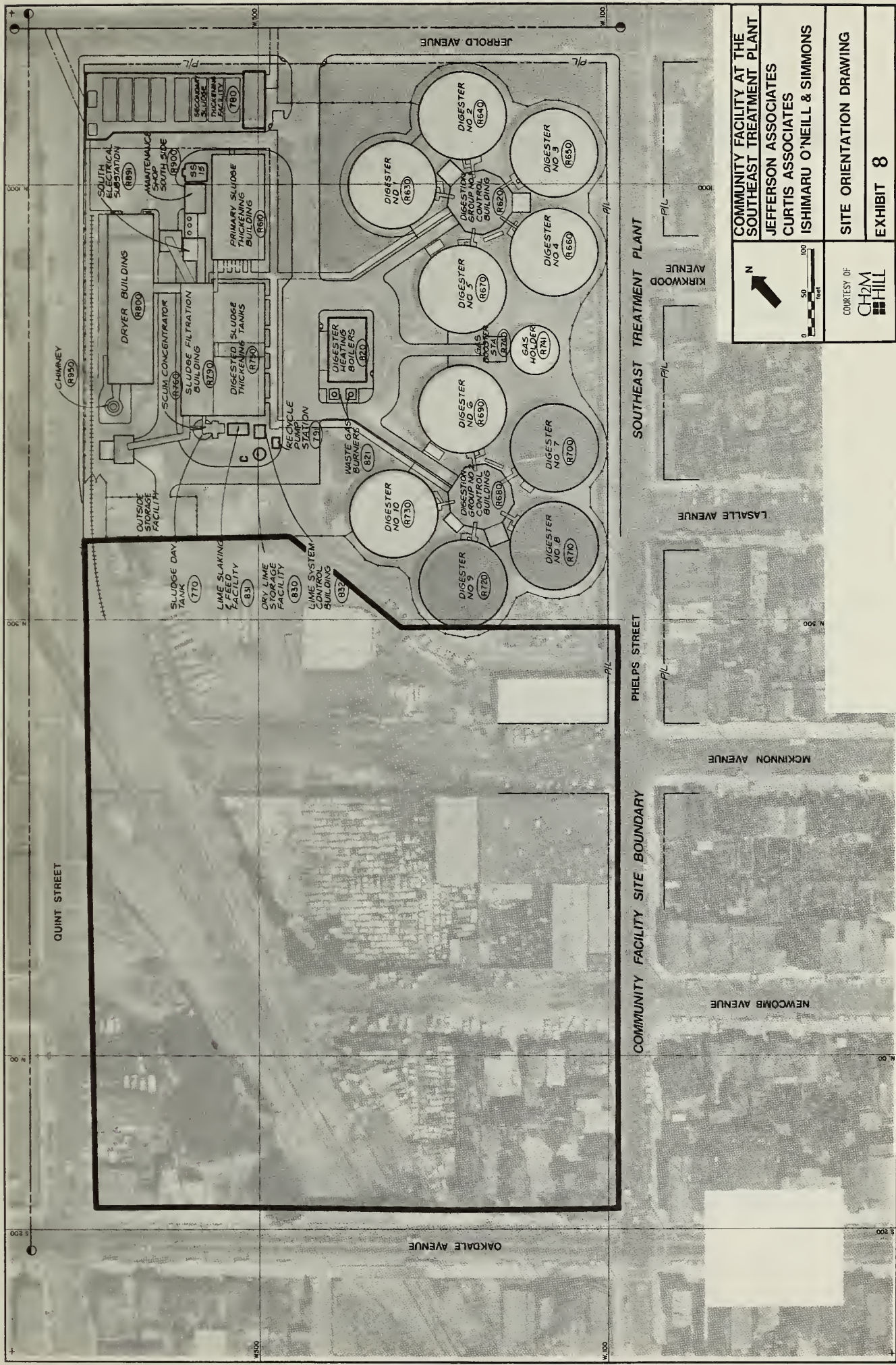


LEGEND:

-  PROJECT SITE
-  SOUTHERN PACIFIC RAILROAD PROPERTY
-  STREETS
-  ASSESSOR'S BLOCK NUMBER
-  SOUTHERN PACIFIC RAILROAD TRACKS

Scale 0 200 feet

COMMUNITY FACILITY AT THE SOUTHEAST TREATMENT PLANT
JEFFERSON ASSOCIATES CURTIS ASSOCIATES ISHIMARU O'NEILL & SIMMONS
PROJECT SITE
EXHIBIT 7



	COMMUNITY FACILITY AT THE SOUTHEAST TREATMENT PLANT	
	JEFFERSON ASSOCIATES CURTIS ASSOCIATES ISHIMARU O'NEILL & SIMMONS	
	SITE ORIENTATION DRAWING EXHIBIT 8	

parcel. In addition to these trees, smaller bushes border the Southern Pacific Railroad tracks in the southwest portion of the proposed project site.

Topography

This parcel has a relatively constant slope from its southeast corner down to its northwest corner. It changes from approximately 50 feet to 20 feet above sea level.

Views and Vistas

Views of and views from the community facility site are important to take note of. There are view corridors looking west down Newcomb and McKinnon Avenues. These view corridor streets afford views of the site from some of the dwellings at the eastern terminus of McKinnon which is at an elevation of 150 to 175 feet. Newcomb Avenue affords views from an even higher elevation. Pedestrians and auto passengers coming down these streets will also see that portion of the site which is visible where Newcomb intersects Phelps Street. From the south and east sides this site can be seen from dwellings and from streets and sidewalks in an east-west direction along Oakdale Avenue and Palou Avenue. The views of the site coming down the hill on Phelps Street and Quint Street in a northeasterly direction are also very prominent.

While standing in the interior of the site where McKinnon and/or Newcomb presently penetrate, one can see a number of interesting views toward the north and west directions. There is a view of the partially-elevated Southern Pacific tracks with frequent commuter trains in the morning and evening, the freeway structure and the movement of cars against the backdrop of Bernal Heights hill with its houses and Mount Sutro Tower. There is a high visual interest in this view of the railroad and freeway structure: the movement of trains and autos against a backdrop of the hill, the houses and Sutro Tower. All of these signs seem to point preliminarily in the direction of a conceptual design that preserves some lovely scenery for the staff and users of the eventual community facility.

Adjacent Uses

On the east and south of the project site contiguous land use is primarily low rise, low density residential,

with a preponderance of traditional San Francisco single-family style houses. To the north and west of the community facility site the immediately adjacent land use is industrial.

Acreage Allotted

The acreage allotted for the community facility has generally been presumed from past discussions and documents to be "about 8 acres". The original site designation of "about 8 acres" probably included some segment of the Southern Pacific land in the computed acreage for the site.

The following calculation of actual acreage included in the site indicates that the total acreage is approximately 7.048 acres. This includes the area to the west of the Southern Pacific Transport Company property, bordered by Quint and Oakdale Streets, which has not yet been acquired by the City. The following calculation substantiates our estimation as follows:

Assessor's Block #5280

The acreage for Block #5280 was determined by an approximation of the configuration on the site location map as provided by Deleuw/Greeley/Hyman. The approximate measurements were determined by taking 75% of the block measuring $600' \times 200' = 2.066$ acres less the area (.264 acre) owned by Southern Pacific Transport Company, for a total of 1.802 acres.

Assessor's Block #5304

The acreage for Block #5304 was determined by the block measurement of $600' \times 200'$ for an acreage of 2.755 acres, less the acreage (.797) owned by Southern Pacific Transport Company, for a total of 1.956 acres.

Assessor's Block #5313

The acreage for Block #5313 was determined by the block measurement of $600' \times 200'$ and acreage of 2.755, less the acreage (1.092) owned by Southern Pacific Transport Company, for a total of 1.663 acres. The area to the west of the

Southern Pacific property bordered by Quint Street and Oakdale Street, according to the City Department of Real Estate, has not yet been acquired by the City but is included in the total measurement. This area includes lots numbers 12, 13, 14, 15, 18, and 26.

Newcomb/McKinnon Streets

The area occupied by Newcomb and McKinnon Streets was taken into account as part of the total acreage. According to the Assessor's Office, the streets are 80 feet wide from property line to property line. The measurements used were 80" X 600' for an acreage of 2.2 acres, less .537 for the Southern Pacific Transport Company, yielding a total acreage of 1.627 acres.

Summary of Total Site Acreage

AB #5304	1.956
AB #5313	1.663
AB #5280	1.802
Newcomb, McKinnon Sts.	<u>1.627</u>
Total	7.048

Aerial Easement

In previous discussions some mention has been made of a bridge in connection between the two parcels (presently separated by Southern Pacific Railroad tracks). According to the Southern Pacific Transport Company and the Department of Public Projects, there would be no problem with adequate vertical and horizontal clearance should this connection be pursued. The connection would be subject, of course, to PUC approval and Southern Pacific engineering review.

IV

Alternatives

IV. ALTERNATIVES

PRELIMINARY OPTIONS CONSIDERED

General Approach

The general approach of the consultant team to the development options was to generate the widest possible range of potential options and uses. A meeting of technical specialists and community-based professionals was organized to exchange ideas for potential community facility options. The special option "brainstorming session" brought together a wide range of persons from a variety of disciplines where a process of discussion led to the generation of approximately 25 options.

These options were then grouped so that activities that are functionally connected were put together. In addition, consultant team members used their own past experience and research investigations to generate an additional listing of potential options.

Potential Uses

The following section describes the range of potential uses and facilities that were generated by the consultants and the special option "brainstorming session."

- Community Garden Facility
- Vegetables and flowers would be grown for community use and commercial sale, using wastewater by-products.
- Environmental Education Center
- The Southeast Treatment Plant would be used as a laboratory for educating and training unemployed residents in the Bayview Hunters Point community to work in the environmental industry.
- Community Center for Environmental Industry Related to a Sewage Treatment Plant
- A community center would provide skills training for environmental industry with

emphasis on the use of treatment plant waste products as primary resources for a commercially viable industry.

- Greenhouse Facility

Soil and soil-less (hydroponic) plant growing methods would be used in the greenhouse production of produce and/or flowers for sale to the public. A job-training program would be established as a learning center to educate and train community residents in conservation and nutrition, distribution and sale of produce and/or flowers and overall management of the facility.

- Community Recreational Facility

A variety of indoor and outdoor recreational and community programs would be provided for Bayview Hunters Point residents with emphasis on supplying facilities and services that are not available in the community.

- Skills Training Center

Existing training programs in the community would be consolidated into one Bayview Hunters Point Skills Training Center.

- Community Business Council: A Center for Economic Development

Community leaders and business experts would be assembled to establish a foundation for attracting and purchasing labor-intensive industries within Bayview Hunters Point. The primary focus would be to encourage community development and to create additional employment opportunities for community residents through business development.

- Business Development and Training Center

Training programs for a variety of business and handicraft skills would be conducted at the center with outlets provided for the marketing of crafts.

- Home Repair and Weaterization: A Training Employment Program

Training programs would be provided for the community youth in the techniques of energy conservation analysis, installation of weather-stripping and insulation materials and preliminary home repair skills.

- Agricultural Demonstration Project

Intensive agricultural techniques using sewage sludge would be the emphasis of demonstration projects and/or an experimental laboratory test. alternative agricultural methods and courses in plant biology and nutrition.

- Silicon Micro-Computer/Chip Production Plant

On-the-job training in micro-computer chip production would be provided for the Bayview Hunters Point community residents.

- Equipment Rental Yard

An equipment rental yard facility would rent or lease tools, hardware and home and yard repair and construction equipment to private individuals, small contractors and tradesmen. This would provide limited training and employment in equipment maintenance, rental yard management and equipment repair.

- Rental Recreational Facilities

Recreational facilities would be available to the community on an hourly rental basis to be used in combination with free recreational public use areas.

- Housing Rehabilitation and Restoration Business

A housing rehabilitation and restoration business would provide materials and trained labor for the restoration of older San Francisco buildings. Training and employment would be provided in wood machinery operations, demolition, housing repair activities and soldering and welding.

- Auto Parts Supply Company

The retail and wholesale sale of parts, hardware and equipment for the repair of cars and trucks would provide skilled employment for the community through auto machine shop activities.

- Manufacture and Installation of Intermittent Ignition Devices

A facility would be established for the manufacture and installation of intermittent ignition devices to be used as replacements for conventional pilot light systems in residential and commercial space heating systems.

- Cooperative Solar Energy Installation Program

Energy-saving services such as installation of solar water-heaters and insulation would be provided with available long-term amortization and low-interest loans. This cooperative business facility would provide these services to low-and moderate-income homes as a percentage of their home heating bills.

- Solar Energy Demonstration Facility

A learning center would provide displays of solar energy equipment and programs to educate the community regarding energy conservation and alternative energy sources available to the public.

- Solar Collector Assembly and Fabrication Plant

A manufacturing plant would be established for the assembly and fabrication of solar collectors with on-the-job training in solar collector manufacturing techniques.

- Solar and Insulation Job Training Facility

Training programs would be provided in the techniques of solar energy collectors and insulation installation for commercial and residential uses.

- Cellulose Insulation Recycling Plant

The development of a treatment plant for recycling newspapers would provide employment for community residents through the collection of newspapers, insulation manufacturing and the installation of the blown cellulose insulation.

- San Francisco Airport and Port Support Industries

This facility would provide on-the-job training for packaging and pre-packaging of freight for export from the airport and/or pier facilities and maintenance and servicing of airport-related equipment and vehicles.

- Laundry Center

A large commercial laundry facility would use solar heat with methane and effluent from the treatment plant to provide laundering services for the community and the City of San Francisco.

- Community Compost Development Project

Sewage effluent from the Southeast Treatment Plant, tree and garden trimmings from a community beautification program and garbage waste from the nearby wholesale produce market would be used to produce compost and nutriment supplements. Programs would be established to train and educate community residents in equipment operation and alternative composting technologies.

SCREENING OF ALTERNATIVES

In order to select four final alternatives, the 25 options were screened using an evaluation matrix which focused upon specific constraint and benefit criteria (for more information on the evaluation matrix see Internal Working Paper #1.¹⁰). The matrix was used to evaluate and rank each of the alternatives in terms of the following:

- Plan compliance with City and SWRCB requirements
- Capital costs of buildings and equipment

¹⁰ Jefferson Associates, Community Facility at the Southeast Treatment Plant, San Francisco, January 1979.

- Funding sources for operating costs.
- Viability of operations and management mechanism
- Environmental Factors:
 - Mitigation of effects of plant expansion
 - Development of positive effects on community environment
 - Minimization of negative effects on community environment
- Community benefits in the provision of community support services, training and education
- Employment/economic benefits in the provision of jobs, goods or services to the community.

The 25 alternatives were evaluated and ranked. From the ranking process four alternatives were selected as the final alternatives. These alternatives included the five preliminary alternatives with the lowest combined matrix scores. In one case two of the alternatives were combined to create one of the final alternatives. The four alternatives were also expanded and modified where consistent with the primary facility function, to include limited features of the other proposed development options.

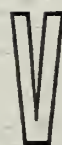
Selected Alternatives

The four selected final alternatives representing the facility functions with the lowest matrix scores are the following:

- Commercial Greenhouse Garden Facility
- Skills Training Facility
- Community Recreation and Meeting Center
- Recycling and Reclamation Facility

These alternatives were then subjected to a technical alternative evaluation process guided by the same criteria used to evaluate the preliminary options. These evalua-

tions focused upon both constraint criteria, in particular operational funding, plan compliance, management and administration requirements and benefit criteria such as jobs generated and services provided. Chapter 5 documents the comparative evaluation of the four final facility options.



Preferred Plan

V. PREFERRED PLAN

EVALUATION AND RANKING OF FINAL PROPOSALS

Detailed conceptual plans were developed of the four alternatives in order to ascertain their operating costs, capital costs, employment and economic benefits, environmental effects and the types of programs and services to be provided. These conceptual plans provided the basis for a technical alternatives evaluation as well as providing the background information to facilitate community evaluation and ranking of the final options.

Description of Four Final Alternatives

Alternative 1: Commercial Greenhouse Garden Facility

The Commercial Greenhouse Garden Facility provides the opportunity for using environmentally sound technologies for the production of a wide range of horticultural and agricultural commodities for retail and wholesale marketing in the greater Bay Area region.

Several associated activities would be planned for the site. In coordination with the primary greenhouse activities, a commercial composting operation would convert sewage sludge from the treatment plant with the plant and fiber wastes from local industry into a potting medium for use in the greenhouses and for marketing to the public. In addition, space would be provided for a community garden, a classroom/meeting place, a horticultural arboretum and an environmental center. The core facility would consist of 120,000 sq. ft. of greenhouse and an accompanying 60,000 sq. ft. of outdoor growing space that would be used for the commercial production of house plants, tree crops, woody ornamental shrubs, herbs, fresh specialty vegetables, cut flowers and floral greens, mushrooms and vegetable seedlings. The greenhouse units would be constructed from commercial industry materials and adapted with solar heating and cooling systems. Waste methane gas from the Southeast Treatment Plant would be used as a supplemental source of heat for the greenhouse. Labor intensive operations would be emphasized in the production to provide the optimum number of job training and employment opportunities. Primary benefits to be provided by the greenhouse garden facility would include:

- Development of job opportunities in environmentally sound vocations (provisions of 50 - 100 jobs).
- Productive use of sewage treatment plant by-products (sludge and methane).
- Development of an economically viable community industry with substantial market possibilities.
- Provision of training in horticultural techniques, greenhouse management and marketing technologies.
- Provision of visually pleasing structures and landscaped areas as a physical amenity to the neighborhood.

Operational funding for the greenhouse facility would be expected to come from the greenhouse and composting operation revenues. The facility would be projected to be totally self-supporting after an initial start-up period of approximately six months.

Alternative 2: Skills Training Facility

The Skills Training Facility would consist of a multiple use complex designed to accommodate and provide for a significant expansion in the activities of all job training programs currently operating in the Bayview Hunters Point Community. Primary facilities include: a two-story classroom building designed to serve up to two thousand students a year, a job counseling and placement center, day care facilities and a comprehensive automobile service and repair clinic.

The essential purpose of the Skills Training Facility would be to provide meaningful job training for Bayview Hunters Point residents in high growth job areas. Other primary objectives of the Skills Training Facility would include:

- Provision of job training for Bayview Hunters Point residents in high growth employment areas.
- Development of attractive physical structures and landscaping to help mitigate negative effects of treatment plant expansion.

- Creation of a profit-making auto clinic (incubator industry) to provide at least 20 new jobs, on-the-job training and revenues for facility operation.
- Provision of a low-cost auto repair service to the community.
- Provision of direct placement services for training graduates.
- Utilization of existing job training resources for operations and management with provision for expanded and improved facilities and equipment.
- Provision of day care services for students at the facility.

Operational funding for the facility would be expected to come primarily from the funding sources of existing skills training programs with some additional revenues (\$125,000) to be generated by the auto clinic facility.

Alternative 3: Community Recreation and Meeting Center

The proposed recreation and meeting center would provide a variety of indoor and outdoor community and recreational programs and services for the Bayview Hunters Point residents. Emphasis would be given to supplying facilities and services that are not adequately available in the community. The selection of the types and volume of facilities would be designed to offer formal and informal activities for diverse age groups. The proposed facilities would include: two tennis courts, two basketball courts, one softball field with night lighting, an indoor roller skating rink, a small children's play area, picnic areas, community garden greenhouse space and a community center equipped with a kitchen, recreation and meeting rooms, and a child day care center.

The six primary objectives of the proposed center are as follows:

- Provision of structured indoor recreational programs with emphasis on participation of all age groups.

- Provision of outdoor recreational facilities not available in the immediate community.
- Provision of meeting rooms for overall community use.
- Enhancement of visual appearance of project area to mitigate negative impacts of sewage treatment plant expansion on community.
- Encouragement of senior citizen participation in community garden/greenhouse facility.
- Development of profit-making recreational facility (roller rink) to contribute 40 to 50% of the part maintenance and operation costs.

Operational funding beyond the 40 to 50% support from the roller rink would necessarily come from the city funding sources. However, no assurances are possible at present from a particular funding agency or city department.

Alternative 4: Recycling and Reclamation Facility

The Recycling and Reclamation Facility would include a range of recycling and reclamation activities designed to provide employment, training and conservation of scarce resources through the reclamation and remanufacture of building materials, plumbing hardware, household appliances and scrap steel plate.

Primary facilities would include a store showroom and office complex, a plating and deplating facility, a paint removing/dipping facility, a woodworking facility, a metal workshop and a materials and storage yard. It would provide storage and support facilities for the demolition and reuse of buildings within the Bay Area. In addition, the facility would serve as a regional center for the remanufacture and resale of used building materials, building hardware and plumbing hardware generated from building demolition and jobs of other demolition contractors and organizations within the Bay Area.

The underlying purposes of the facility are fourfold:

- To provide employment and training for 30 - 50 Bayview Hunters Point residents through the reuse and remanufacture of building materials, hardware and household appliances.

- To provide low-cost building materials and household appliances to Bayview Hunters Point residents for use in the rehabilitation and remodeling of buildings within the community.
- To facilitate conservation of timber resources, steel, brass, copper and energy resources by establishing effective procedures for the reclamation and reuse of used materials.
- To establish a successful, environmentally sound community enterprise.

Operational funding for the recycling and reclamation center would be expected to come from the revenues from sales of building materials, plumbing hardware and rehabilitated household appliances in addition to revenues from provision of milling, stripping, plating and deplating services. The facility would be expected to be self-supporting after an initial six-month start-up period.

Comparative Analysis of Alternatives

To facilitate evaluation and selection of a preferred alternative, information was developed on the principal attributes of the four proposed alternatives. Documentation is provided here on the comparative advantages and disadvantages of each of the alternatives relative to capital costs, operating costs, mechanisms for operations and management and a range of benefit attributes: employment, economic benefits, provision of goods and services, visual aesthetics, social/psychological benefits and use of treatment plant waste by-products. Table 5 summarizes the comparison of the four alternatives.

Capital Costs

The estimated projected capital costs of the four alternatives range from \$2,114,200 for the Recreation Facility to \$6,079,000 for the Skills Training Facility. Principal capital costs expenditures are landscaping, site preparation and new building construction or renovation of existing

TABLE 5 SUMMARY: COMPARISON OF ALTERNATIVES

ALTERNATIVES	CAPITAL COSTS	OPERATING COSTS AND SOURCES		OPERATIONS AND MANAGEMENT	BENEFITS				
		STARTUP	OPERATIONAL		EMPLOYMENT ECONOMIC	GOODS AND SERVICES	VISUAL ESTHETIC	SOCIAL PSYCHOLOGICAL	UTILIZES WASTES
1 COMMUNITY GREENHOUSE GARDEN FACILITY	<p>ASSUMES SWRCB GRANT</p> <p>FUNDING OF:</p> <p>\$5,800,000</p> <p>MAY BE ELIGIBLE FOR 10% BONUS FOR USING NEW TREATMENT TECHNOLOGIES.</p>	\$568,000	<p>COSTS</p> <p>\$1,710,000</p> <p>REVENUES</p> <p>\$1,850,000</p> <p>FROM PRODUCE AND COMPOST SALES</p>	<p>EXECUTIVE MANAGEMENT COMMITTEE</p> <p>-COMMUNITY REPRESENTATIVE</p> <p>-ADVISORS FROM GREENHOUSE AND NURSERY INDUSTRY</p> <p>FACILITY MANAGER AND JOB TRAINER TO BE HIRED</p>	<p>CREATES 50-100 JOBS</p> <p>GROSS REVENUE AT 1,850,000</p>	<p>PROVIDES VEGETA., ORNAMENTAL CROPS HOUSE-PLANTS, TREE CROPS FLOWERS, HERBS, MUSHROOMS, COMPOST, WORMS FOR MARKET AND COMMUNITY ON-SITE SALES</p> <p>DAY-CARE FACILITY</p> <p>ENVIRON. TRAINING EDUCA. ARBORETUM</p>	<p>OVERALL GREENERY, ADMS-PHERE WITH TREE PLANTING FOR SCREENS AND CROP PRODUC.</p> <p>DROUGHT RESISTANT GROUND COVER</p> <p>SMALL PARK AND COMMUNITY GARDEN</p>	<p>USE OF NEW ENVIRONMENTAL TECHNOLOGIES</p> <p>ENHANCES COMMUNITY IMAGE</p>	<p>USES SEWAGE SLUDGE</p> <p>USES METHANE GAS FOR BACKUP GREENHOUSE HEATING</p> <p>USES PRODUCE WASTE FROM S.F., PRODUCE MARKET</p> <p>USES WOOD CHIPS AND SAWDUST</p>
2 SKILLS TRAINING FACILITY	<p>ASSUMES SWRCB GRANT FUNDING OF</p> <p>\$6,079,000</p>	\$525,000	<p>COSTS</p> <p>\$1,075,000</p> <p>REVENUES</p> <p>\$120,000</p> <p>FROM THE AUTO CLINIC WITH REMAINDER OF FUNDING FROM STATE AND FEDERAL SOURCES</p>	<p>UMBRELLA POLICY BOARD</p> <p>-REPRESENTATIVES OF FACILITY USERS</p> <p>-COMMUNITY REPRESENTATIVES</p> <p>ONE DIRECTOR AND TWO DEPUTIES TO BE HIRED</p> <p>POSSIBILITY OF HAVING COMMUNITY COLLEGE DISTRICT ASSUME CENTRAL RESPONSIBILITIES</p>	<p>CREATES 20 NEW JOBS</p> <p>GROSS REVENUE OF \$120,000</p>	<p>DOUBLES JOB TRAINING CAPACITY</p> <p>PROVIDES AUTO REPAIR CLINIC IN COMMUNITY DAY-CARE FACILITY</p> <p>DIRECT JOB PLACEMENT SERVICES</p>	<p>TREE SCREENS FROM RAILROAD</p>	<p>IDENTIFIED AS COMMUNITY PRIORITY</p> <p>IMPROVES EXISTING COMMUNITY PROGRAMS</p>	<p>NO SIGNIFICANT WASTE UTILIZATION</p>
3 COMMUNITY RECREATION AND MEETING CENTER	<p>ASSUMES SWRCB GRANT FUNDING OF</p> <p>\$2,114,200</p>	\$16,900	<p>COSTS</p> <p>\$88,000</p> <p>REVENUES</p> <p>\$39,000</p> <p>FROM ROLLER SKATING RINK WITH REMAINDER OF FUNDING FROM RECREATION AND PARKS AND OTHER SOURCES</p>	<p>ADMINISTRATIVE MECHANISM</p> <p>-COMMUNITY RESIDENTS</p> <p>-DEPT. OF PARKS & RECREATION</p> <p>-CONTRACTOR OF ROLLER SKATING RINK</p> <p>CONTRACTOR TO BE HIRED</p>	<p>CREATES 10-15 JOBS</p> <p>ROLLER RINK GENERATES GROSS REVENUES OF \$40,000</p>	<p>INCREASES RECREATIONAL PROGRAMS</p> <p>DAY-CARE FACILITY</p> <p>COMMUNITY GARDEN</p>	<p>PLEASANT PARK-LIKE ENVIRON.</p> <p>TREE SCREENS FROM RAILROAD AND SEWAGE DIGESTORS</p>	<p>ENCOURAGES FAMILY/COMMUNITY ACTIVITIES</p> <p>ENHANCES COMMUNITY PUBLIC SPACE</p>	<p>NO SIGNIFICANT WASTE UTILIZATION</p>
4 RECYCLING AND RECLAMATION CENTER	<p>ASSUMES SWRCB GRANT FUNDING OF</p> <p>\$4,869,112</p>	\$204,000	<p>COSTS</p> <p>\$713,000</p> <p>REVENUES</p> <p>\$795,000</p> <p>FROM SALE OF BUILDING MATERIALS AND SERVICES</p>	<p>TECHNICAL MANAGEMENT BOARD</p> <p>-SENIOR FACILITY STAFF</p> <p>-COMMUNITY BUILDING, METAL & RECYCLING TRADESMEN</p> <p>COMMUNITY POLICY BOARD</p> <p>-COMMUNITY MEMBERS</p> <p>-REPS. OF COMMUNITY COLLEGES</p> <p>-REP. OF COMMUNITY AFFIRMATIVE ACTION</p> <p>-COMMUNITY WOOD & METAL TRADESMEN</p>	<p>CREATES 30-50 NEW JOBS</p> <p>GROSS REVENUE OF \$795,000</p>	<p>TRAINING IN RECYCLING/RECLAMA. SKILLS (WOOD-WORKING & METAL)</p> <p>PROVISION OF INEXP. BUILDING MATERIALS AND RECLAIMED HOUSEHOLD APPLIANCES</p>	<p>LACKS ATTRACTIVE VISUAL QUALITY</p>	<p>ENHANCES COMMUNITY ESTEEM FROM INNOVATIVE RECYCLING FACILITY</p>	<p>LIMITED USE OF METHANE GAS FOR SPACE HEATING AND STRIPPING</p>

buildings on the site. The Skills Training Center requires the greatest expenditure for special equipment and machinery, in excess of \$1,000,000. All of the alternatives assume that the capital costs of their site preparation, construction and machinery and equipment are to be grant fundable by State Clean Water Grant Funds as a mitigation of negative effects of the Southeast Treatment Plant Expansion Project.

The Greenhouse Garden Facility may be eligible for an additional 10% funding of the capital cost share by State Clean Water Grant funds because of its use of alternative techniques for the reuse of wastewater treatment by-products, methane and filter cake. This possible additional funding source would effectively lower the local share of 100% of the capital costs from 12-1/2% to 2-1/2% of total costs.

Operating Costs

The start-up and operating costs for the four alternatives and their identified funding sources are shown in Table 1. Alternative 3, the Recreation and Meeting Center, provides the potential benefit of low operating costs but would have identified funding for only 40-50% of these costs after a one-year operation period.

The Skills Training Center, Alternative 2, identifies operating costs of \$1,075,000 of which an estimated 11% are expected to be funded by self-generated revenues. The Skills Center would rely on existing job training program funding sources for operational funding of its other 89% of operating costs, at least in the initial operating phases. Both alternatives 2 and 3, the community services alternatives, suffer from some uncertainty about short and long-term funding sources. They lack clear assurance from any funding agency of a commitment for 5, 10 or 15 year funding of basic operational costs. However, the Recreational Facility requires non-revenue funding of \$40-45,000 while the Skills Center requires non-revenue funding of \$950,000.

The two community business-oriented alternatives, the Greenhouse and the Recycling Facility and Reclamation Center, expect to generate revenues sufficient to assure operational funding costs.

The Greenhouse Facility revenue projections are based upon comparable Greenhouse operations elsewhere in the Bay Area and include identification of reasonably safe product markets. The Recycling and Reclamation Center identifies strong market demand for recycled lumber products but projected demand for building hardware, reclaimed plumbing hardware and mailing services is more difficult to validate. This suggests greater uncertainty of Recycling Center revenue projections.

Start-up Costs

The Greenhouse Facility and the Skills Training Facility project have anticipated start-up costs of about \$500,000. The Community Recreation and Meeting Center alternative benefits from a small start-up cost estimated at \$16,900.

All the alternatives lack clear sources of start-up funding. Each of the alternatives would require SWRCB grant funding for operations and maintenance associated with the start-up of facility operations.

Operations and Management

All the alternative facility concepts propose governing and administrative mechanisms which combine community representation with specialized administrative or technical management. The two service-oriented facilities, the Skills Training Center and the Recreation Facility, employ the administrative structures of existing agencies for the principal management function. However, the actual means for integrating community representation in management and operation requires further detailing in an operational plan.

The two community businesses also depend upon a combination of technical and staff management personnel and community representation of their governing mechanism. This would most likely be in the form of a Board of Directors with broad-based representation. As such, the governing mechanism of the two business alternatives does not rely upon on-going public agencies and programs. Implementation of either of the business alternatives requires precise specification of mechanisms and devices to minimize conflict and policy confusion inherent in establishing the appropriate management entities.

Employment/Economic: Benefits

The Greenhouse Facility has the greatest projected employment/economic benefits. The plan for the Greenhouse operation projects a creation of 50-100 jobs through labor intensive productive techniques with annual revenues of \$1,224,000.

The Recycling and Reclamation Center plan anticipates the generation of 30-50 new jobs of a labor intensive character with anticipated revenues of \$795,000 under conditions of full employment (50 jobs) projections.

The Skills Training Center plan would provide 20-45 new jobs largely based upon successful development of its Automotive Repair Clinic component. Net revenues of \$120,000 would be generated by the repair facility.

The Community Recreation Center plan generates the fewest number of new employment positions, 10-15 jobs, principally through its roller rink facility. The roller rink would be expected to generate net revenues of approximately \$40,000.

Goods and Services: Benefits

All the plans identify goods and/or services that would be generated by the facilities in addition to any direct employment or revenue benefits. As indicated in Table 1, the Greenhouse Facility would provide plants, vegetables and compost for on-site sales. Because of the high volume commercial trade of the greenhouse operation, on-site sales could be made to community members at low prices. The Greenhouse Facility concept also provides for on-site horticultural skills training and environmental training as a facet of its operations.

The Skills Training Facility would more than double the capacity of the existing job training programs in the area. In addition, it would provide a small day care facility. An auto repair clinic would provide on-site low cost auto repair services performed by training center student graduates.

The Recreation and Meeting Center is primarily a community service facility. It would provide new recreational space and programs, day care services and multi-purpose indoor space for a variety of community meetings and functions.

The Recycling and Reclamation Center would provide on-site training in woodworking, metal working and appliance repair and availability of low-cost building materials, hardware and appliances for the community.

Visual/Aesthetic: Benefits

The community Greenhouse Facility and the Recreation and Meeting Center would provide the greatest positive impact on the visual character of the site. Both provide park-like environments utilizing tree-planting screens. The Greenhouse also employs green crop production screens.

The Skills Training Facility would provide new visually attractive facilities on the higher portion of the site at the corner of Phelps and Oakdale Streets. It would also provide tree screens from the railroad tracks. However, it would use existing warehouses for training activities and would not provide greenery and landscaping over as wide an area as the Recreation and Greenhouse alternative plans.

The Recycling Facility would not provide an attractive visual form for the site. The nature of its production and storage requirements and its requirement for a large material and equipment yard would constrain its decorative and design features.

Social/Psychological: Benefits

The Community Greenhouse Facility might be expected to enhance the community image and community esteem through the development of on-site new environmental technologies. The Skills Center would provide a functional improvement in existing community programs, an identified concern of high priority in the community survey. The Recreation and Meeting Center would encourage new family and community activities and enhance the community public space within Bayview Hunters Point.

The Recycling Facility would contribute to community esteem through the development of an innovative regional facility with revenue generating potential.

Use of Waste Products: Benefits

Only the Greenhouse Facility uses a substantial amount of treatment plant by-products in its operation. It would use sewage sludge for composting and methane gas for heating of the greenhouse structures.

The Recycling Facility would use the waste methane gas for heating stripping tanks and for space heating. The other two alternatives would also use the methane gas for space heating.

Determination of the Preferred Alternatives

All the alternatives, if fundable, would contribute to the enhancement of community quality in Bayview Hunters Point. However, both the Skills Center Facility and the Recreation and Meeting Center lack assurance of continuing operational funding.

The two business alternatives, by virtue of the provision of operating funds through projected revenues, are the only alternatives with a clearly identified operational funding plan. The Greenhouse option appears to have the greatest revenue-generating potential and the strongest basis for projecting assured long-term operational revenues.

The Greenhouse option also appears to have superior job generating potential and a positive impact on the visual quality of the community. The potential of the Greenhouse Facility for use of treatment plant waste products would enhance the possibility of State Water Resources Control Board's approval of capital and start-up funding. A self-supporting facility in conjunction with a superior job-generating capacity, likely positive environmental effect, positive visual quality and social/psychological imagery underscores the relative superiority of this option.

Public Participation Process

The community information and feedback process used in this study contained four distinct and interrelated elements:

1. Liaison with community organizations and individuals;
2. A random sample household survey;

3. A brochure and a community newspaper to distribute information;
4. A community workshop.

The public participation process was designed to establish contact with and obtain feedback from established community leaders and organizations. However, the community household survey and handout response forms were also employed as a device to query community residents that are not members of activist groups and that are not often heard from at City Hall. An active Model Cities program and previous community programs developed a substantial number of community organizations and community activists. In addition to the organizations whose lineage can be traced to federally funded programs, there are new neighborhood and community organizations that involve diverse sections of the community. As in other communities, there are also many residents who are not involved in any organized community activities.

Given the group organization of major segments of the community, a concentrated effort was made to contact key organizations and individuals for information and feedback. A random sample survey of households was conducted to get information from a cross-section of residents, information and feedback brochures were distributed in the community and published in the community newspaper, and finally, a workshop was held to allow face-to-face discussions of community facility ideas among residents, consultants and agencies involved in the program.

Key Informants and Organizations

A list of key community contacts, organizations and individuals was developed for this study. This list was developed cooperatively by Curtis Associates of the consultant team and Mr. Alex Pitcher, Community Liaison Representative of the San Francisco Wastewater Program, both of whom have extensive experience working in the Bayview Hunters Point community.

In developing the community contact list, attention was paid to all elements of the infrastructure of the Bayview Hunters Point community.

The key informant and organization contact list developed for this study contains a listing of community organizations, public agency stations in the area, churches, recreational facilities and a list of key individuals. The list is available for review on request.

Liaison with Community

Consultant team members appeared at scheduled meetings of community organizations to present the options developed for the facility and the plans for the project. Staffs of some of the community organizations were also briefed on the subject.

At these meetings the issues were discussed and descriptive material on the project was distributed. This descriptive material provided background and history of the study, a brief description of the four alternatives, requested feedback from the audience and announced an all-day community workshop.

In order to maximize the impact of meetings with organizations, prime attention was given to organizations that either involved many people or represented several organizations in the community. Three organizations in the area have those attributes: the Bayview Hunters Point Coordinating Council represents a majority of the community organizations, the Shafter Avenue Association is a widely-respected resident's organization and the Ministerial Alliance, through its Civic Affairs Committee, represents the churches in the area on civic issues. Meetings of all three were attended.

Additionally, several discussions were held with the staff of the Affirmative Action Program (a manpower program in the area), the Apprenticeship Opportunities Foundation, the Bayview Hunters Point Housing Development Corporation and the two area representatives of the Wastewater Program Citizens Committee, Mr. Madison and Mrs. Garlington. Supervisor Gonzales' office and Assemblyman Art Agnos' office were also kept apprised of the progress of the study.

These discussions usually centered around the utility of the options, questions about the implementation plans and wastewater plant expansion impacts. Assemblyman Agnos' office was concerned about developing a process that would allow the non-activists in the community a role in deter-

mining the function of the facility. There was almost universal agreement that a facility that could approach self-supporting status would be preferable. Many of the community activists pointed to other programs in the community that could not be maintained because funding sources either withered or dried up completely.

Information Dissemination Program

In addition to the face-to-face meetings with community organizations and individuals, mailings, brochures and a community newspaper were used to get information delivered to residents of the area. This information dissemination program provided multiple contacts to many individuals in the community.

The printed information dissemination program was designed to do the following:

- Give the residents background information on the project, the purposes of the study, the study method and the events that must occur before implementation begins.
- Provide a description of the four options developed and the constraints on facility development.
- Provide residents with a means of participation by attending the all-day workshop and/or by giving comments and ideas to the consultants via an enclosed comment sheet.

The descriptive material was distributed at meetings, and quantities were left for pick-up at the Affirmative Action Program office, the Anna Waden Library and at the non-profit Bayview Hunters Point Housing Development Corporation office.

Additionally, the information in the brochure plus pictures and graphics was published in the New Bayviewer newspaper in a double page spread with accompanying front page coverage. This free newspaper features community news and events and is broadly distributed in the community. Ten thousand copies were printed for distribution.

Over 150 of the information brochures were mailed to the list of key organizations and individuals in the community by the San Francisco Wastewater Program. Assemblyman Agnos' office also distributed a mailer based upon the brochure urging residents to participate in the feedback process and meeting.

The results of this information dissemination program were that a number of residents became informed about the study and its focus and opportunities were provided for participation in the development, evaluation and selection of the facility option by written comments and/or participation in the workshop.

Community Household Survey

A household survey was made of 300 randomly selected households in census tracts 230-34, 609 and 610. The objectives of the survey included the following:

- Update of the demographics of the area
- Determination of the principal problems of the community as viewed by the residents
- Development of an opportunity for respondents to augment or replace the consultant options with other ideas
- Determination of the preferences between the four facility options that had been developed by the consultants
- Inform the respondents of the forthcoming community workshop on the facility options.

A detailed report on survey findings is available in a separate report, "Wastewater Facility Study: A Report on Household Survey Results."¹¹ A summary of the community responses is presented in Appendix B and some of the key findings from the survey are summarized below:

- Approximately 33% of the residents were aware of the expansion of the sewage plant
- As to the effects of the sewage plant on the community, 33% of the respondents had no opinion, 25% felt it would have negative effects and 29% thought it would have positive benefits
- In response to the question as to which option would be the best choice for the community, the

¹¹ David Bradwell and Associates, Hunters Point Bayview Community Survey, Final Report, San Francisco, January 1979.

Skills Training Facility was the overwhelming first choice, the Community Recreation Center was the second choice, and the Greenhouse Facility was ranked as the third choice

- In terms of community problems, the sampled households ranked problems related to crime and law enforcement first (28%), unemployment and economic problems second (20%), and community clean-up (garbage pick-up, vacant lots, etc.) third (11.5%)
- Almost 67% of those listing economic problems as the primary problems in the community named job training (48%) and the creation of additional jobs (19%) as the primary needs of the community
- Of the additional features suggested for inclusion in the facility, the respondents rated parks/playgrounds, a child care facility and an adult education center as the most desired.

The responses concerning the preferred options were generally consistent with community perceptions of the basic problems confronting the community. The Skills Training Facility was the overwhelming choice of the respondents, apparently because it was most clearly linked to a major community need, i.e., the need for more jobs and job training programs. However, it was not possible to convey in the survey interview the extent to which the Greenhouse Facility would be a vehicle for new jobs in the community. Had this been possible the results of the survey would have probably been much more heavily weighted towards the Greenhouse alternative. While the Skills Center represents an approach to the jobs problem that community residents are familiar with from the experience of the poverty programs in the 60's and early 70's, the Greenhouse represents a somewhat unconventional approach that may nevertheless be more effective.

To some extent, community survey responses to the requests for a preferred option may have reflected the limited information that could be presented in the short descriptions of the options provided in the survey.

By their nature, the household questionnaire could provide only brief descriptions of the facility options for the respondents to give their opinion. Options were described as follows:

- Commercial Greenhouse Garden Facility: Provide facilities for growing fruit, vegetables, cut flowers and house plants for sale in the community and to local markets as well as a full kitchen and multipurpose room.
- Skills Training Facility: Provide job training in automotive, machinery and electronics repair and skills training for office and business equipment.
- Community Meeting and Recreation Center: Provide meeting areas, indoor and outdoor recreation spaces, community kitchen and multi-purpose rooms.
- Recycling and Reclamation Center: Provide community salvage, recycling and repair of building materials, automobiles and trucks, machinery and household appliances.

More details regarding the survey responses and cross tabulations of survey responses by census tracts, household status, income, etc., are given in a Final Report on the household survey findings: "Hunters Point/Bayview Community Survey" produced by David Bradwell and Associates.

The household survey was conducted by an interviewing team that consisted of ten residents of the area and three interviewers from the staff of David Bradwell and Associates. Area residents for the interviewing team were recruited by the Hunters Point Bayview Affirmative Action Committee. The interviewers were highly motivated and reliable, and the field work was completed in six working days, December 17-23, 1978.

Community Workshop

An all-day community workshop was held on Saturday, January 27, 1979. This workshop was designed to reach and inform the residents in some detail about the facility options available to them and to provide a forum whereby a consensus could be reached on the most desirable facility use. To achieve that goal, the program was structured to progress from a consultant-dominated presentation of the study background and options to a community-dominated discussion of the relation between possible options and community needs.

Attendees at the workshop included community residents, representatives from the State Water Resources Control Board,

the San Francisco Mayor's Office, Assemblyman Art Agnos' office, the San Francisco Wastewater Program, and members of the consultant team.

During the morning workshop session presentations were given covering the constraints of the design in terms of location, costs and justification. There was a detailed discussion of each option with preliminary site plans and descriptive handout materials. The possibility of combining features in the four options and the possibility of adding other features that the audience desired were also discussed. Questions on all phases of the program and the options were answered by the members of the consultant team, representatives of the Wastewater Program office and members of the State Water Resources Control Board as appropriate.

Following the presentations and questions it was decided by the residents to meet among themselves and with a representative of the SWRCB to discuss the ramifications of various options.

This process yielded a consensus that the Greenhouse Facility should be the primary use for the site with space to be provided for a skills training center and any other community serving activities from the Recycling and Reclamation Facility alternative that could be accommodated, given space and funding constraints.

The primary reason for the selection of this alternative was its ability to produce income to support itself and the other facilities on the site. Secondary reasons were the uniqueness of the idea, the potential for providing jobs and experience for residents that would be of lasting value and the community benefits from a low-cost food producing facility.

These results are generally in concert with the results of the household survey. The prime needs for the community, as identified in the survey, were jobs, meaningful skills training opportunities and economic activity. The greenhouse and skills training option, as developed at the workshop, pursues these objectives.

SELECTED PLAN AND REASONS FOR SELECTION

The preferred plan for a community facility at the Southeast Treatment Plant reflects the outcome of three major evaluation processes. First, it reflects the outcome of the

technical evaluation and comparison of alternatives which, according to the specified evaluation criteria, resulted in a designated preference for the selection of the Greenhouse Garden Facility. Second, it reflects the outcome of the community household survey, the best indication of a cross section of project area opinion, where a majority preference was expressed for the Skills Training Facility alternative. Third, it reflects the outcome of the all-day community workshop where community members reached a consensus for the selection of the Garden Greenhouse Facility in a combination with features of the Skills Center Facility.

The State Water Resources Control Board representative present at the community meeting did not agree to fund the alternative that was chosen but he participated in the consensus and his approval of the process and the results thereof was implicit throughout.

The designated preferred alternative is an amalgam concept. It includes major features of the Skills Training Center with the primary structures and activities of the Greenhouse Garden Facility. The concept, as described in summary form below, includes a Greenhouse Garden Facility which has been scaled down in size and combined with a modified Skills Training component to allow for development of both facility alternatives on the designated site.

The Selected Plan

Separate Organizational Entities

The selected plan concept includes both a Garden Greenhouse Facility and a Community Skills Training Center. These facilities would be operated on the same site and be subject to overall management by one administrative body. However, in the day-to-day management, operations, planning, programs and financial affairs, they would be separate, independent entities. This separation of organizational functions would insure that the programs would be operated according to the requirements and priorities of their particular functions, funding and organization. Separation of the facility functions would also assure that the financial solvency of the Greenhouse Facility as a revenue-generating, profit-making entity would not be compromised by the labor and overhead burden of the Skills Center as a non-profit education center. The two plans are discussed below as separate entities and would be expected

to operate with greatest efficacy as independent bodies. Administrative personnel of each of the entities may on occasion contract with each other to provide training, employment or services. However, any such contractual agreements would occur on the basis of standard contractual arrangements between separate and independent organizations.

Greenhouse Facility: Plan Description

Primary Activities

A commercial greenhouse/horticultural center would use environmentally sound technologies for the production of a broad range of horticultural and agricultural commodities for retail and wholesale marketing in the greater Bay Area region. Labor intensive operations would be emphasized in plant production to provide the optimum number of job training and employment opportunities.

Several associated activities would be planned for the site including a commercial composting operation for the conversion of sewage sludge from the local treatment plant with the plant wastes from local industry into a potting medium for use in the greenhouses and for marketing to the public.

Classes in the various skill areas would be held under the auspices of the Skills Training Facility. Certification for the students and payment for the instructors would be provided by the California Community College System. The trainees would function under contract as apprentices, receiving instruction in return for a specified amount of payment vouchers, labor or services. Subject areas of skills training would include: plant propagation and horticulture techniques, greenhouse management, integral pest control, marketing and sales technology and commercial composting.

Existing skills training programs in the Bayview Hunters Point area do not currently provide training in horticultural and agricultural skills. Horticultural training is provided at the main San Francisco Community College campus in the Balboa Park District. However, the coordinators of these courses have not indicated an interest in offering their courses at the proposed facility.

The center could provide plant materials for the local community garden programs at a nominal cost and could serve

as a community education center in environmental technologies. Meeting and classroom space would be provided for holding public seminars in home food production, urban reforestation and house plant care.

The greenhouse units would be constructed from commercial industry materials and adapted for steam boiler heating with waste methane gas from the Southeast Treatment Plant.

Sale of Produce

The greenhouse would provide needed native plant stock for the Department of Water Resources, the California Division of Forestry, the California Conservation Corps and California Division of Transportation. This would be a primary source of sales revenues.

A retail nursery/garden center would be operated on site for the direct sale of plant materials to the public. A diverse marketing program would be undertaken to promote the sale of other horticulture products through wholesale and retail outlets throughout the Bay Area.¹² Compost would be sold in bulk to nurseries, Caltrans, landscape contractors and nursery supply houses. It would also be retailed through plant and home improvement stores.

Use of Treatment Plant By-Products

The compost operation of the Greenhouse Facility would use approximately 6,240 tons a year of sewage sludge, about 10% of the projected sludge production of the Southeast Treatment Plant. Of the compost produced, one-third would be used on-site as a bedding medium for agricultural and horticultural production. The remaining two-thirds would be marketed for sale in bulk and bagged quantities. During the colder winter months the Greenhouse Facility would consume approximately 35% to 40% of the total methane production of the expanded treatment plant.

¹² See Appendix A p. A-11 for further detail in market demand.

Skills Training Opportunities at the Greenhouse/Composting Facility

Capital Costs

The Greenhouse/Skills Training Facility may be eligible for an additional 10% funding of the capital cost share by State Clean Water Grant funds because of its use of alternative techniques for the reuse of wastewater treatment by-products, methane and sludge. This possible additional funding source would effectively lower the local share of 100% of the capital costs from 12½% to 2½% of total costs.

Community Benefits

The concept plan for the Greenhouse operation projects creation of 75-90 jobs through labor intensive productive techniques with annual revenues of \$1,224,000.

Goods and Services

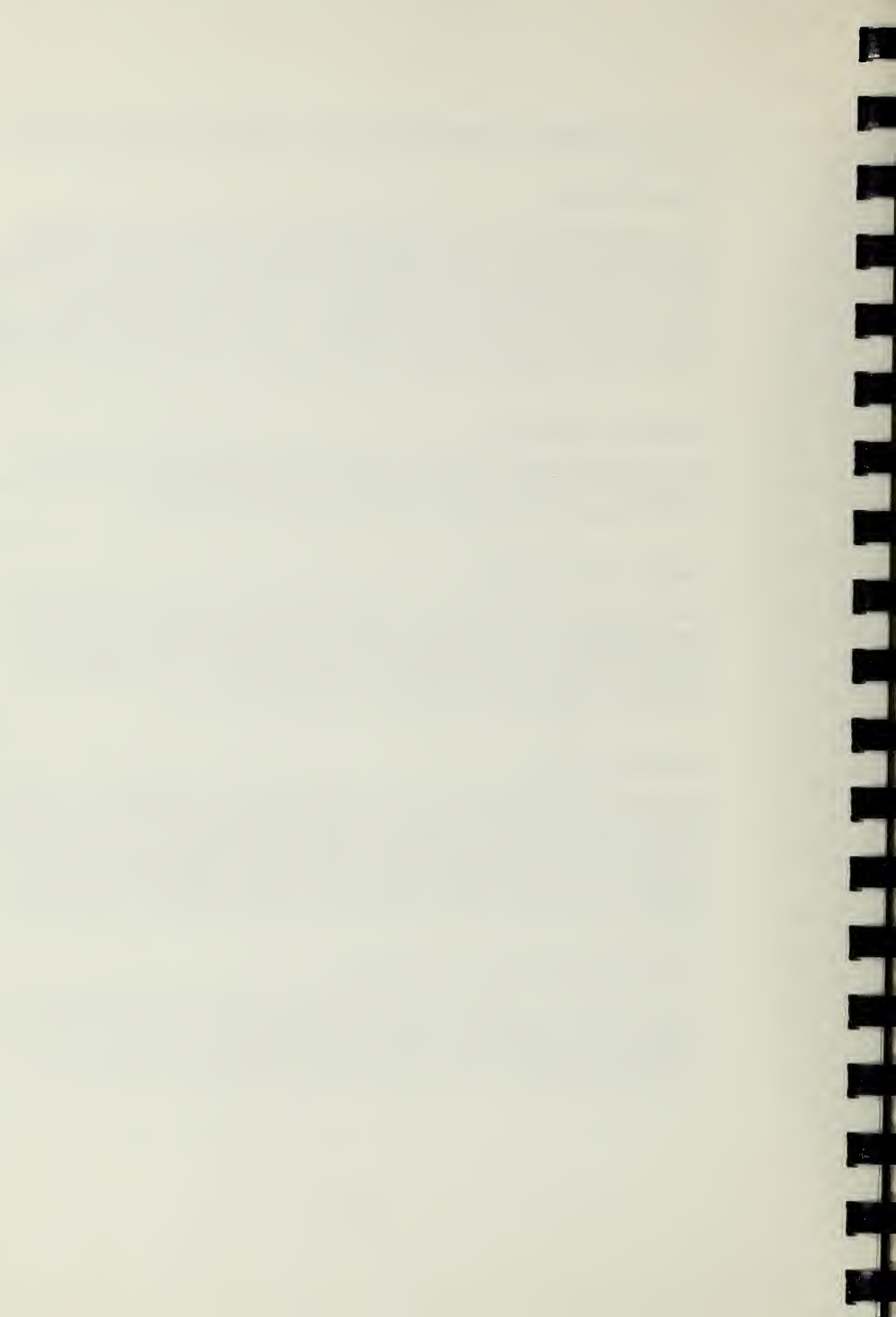
The Greenhouse Facility would provide plants, vegetables and compost for on-site sales. The Greenhouse Facility would also provide on-site horticulture skills training, apprenticeship employment, and community environmental training courses as facets of its operation.

Operating Costs

The cost of labor and the fringe benefit burden on payroll costs would be the major operational expense of the facility. The total payroll cost under full operation is estimated at \$796,250. Additional major operating expenses include the cost of fuel and maintenance for machinery and vehicles, space use fees (rental charges) and liability insurance costs.

Social/Psychological Benefits

The commercial Greenhouse Facility would be expected to enhance the community image and community esteem through the development of new on-site environmental technologies and the development of an innovative community enterprise.



Visual/Esthetic Benefits

The commercial Greenhouse Facility would provide a positive impact on the visual character of the site. A park-like environment would be created using tree planting and green crop production screens.

Skills Training Facility: Plan Description

Primary Activities

The Skills Training Facility as proposed in this concept plan would consist of a multiple use complex designed to accommodate and provide for a significant expansion in the activities of all job training programs currently operating in the Bayview Hunters Point community. The primary facility would be a three-story classroom building designed to serve up to three thousand students a year. Most of the existing programs in the area are presently working in inadequate physical facilities. The Bayview Hunters Point Skills Center, whose facilities are slightly less than 6,000 sq. ft. in space, cannot adequately accommodate its students and training activities. Table 6 indicates the present and projected enrollment and space requirements of the main skills training curriculum that would be offered at the new facility.

The facility would provide expansion for the following on-going programs presently offered by the Hunters Point Skills Center:

- Para-Medical Curriculum

The Home Health Aide course trains students to provide basic at-home nursing care under the supervision of a Registered Nurse and/or physician for elderly and other patients with short or long-term illnesses.

The Licensed Vocational Nursing Program prepares students for the State Licensing Examination. Although the program stresses nursing theory, the student's training is primarily clinical. Students are introduced to medical-surgical nursing, obstetrics and pediatrics.

The Psychiatric Technician Program trains students for a career in the care of psychiatric patients. The course of

ENROLLMENT AND SPACE REQUIREMENTS OF THE SKILLS TRAINING FACILITY

PROPOSED PROGRAMS	Enrollment		Instructional Space	
	Present ¹	Projected ²	Present ¹ (rooms)	Projected ² (rooms)
Hunters Point Skills Center				
Paramedical	100	250	2	7
Clerical	150	350	2.5	13
Pre-vocational	50	225	.5	2
Computer	0	300	0	3
Bayview Hunters Point College				
Vocational				
Word processing	60	80	2	2
Postal pre-training	160	225	1	1
Police pre-training	80	110	1	1
Pre-vocational	50	70	3	3
Extension Courses	335	445	8	13
TOTAL	985	2,055	20	45

¹ Represents enrollment for 1980 provided by the existing training centers.

² Projection to 1982.

study begins with an intensive orientation period for the first four weeks. Students then spend several days a week in a hospital or clinic caring for psychiatric patients under the careful supervision of an instructor. Students also continue to receive classroom instruction in behavioral theory, general psychology and basic nursing - all taught in sequence with the student's clinical experiences.

- Clerical Curriculum

The Freight Transportation Clerk Program trains students as rate clerks, billing clerks and manifest clerks as well as for entry level positions in the freight transportation industry. The program includes: mathematics, bookkeeping, office procedures, typing, fundamentals of shipping and receiving, materials classification and principles of freight rates and tariffs.

Offerings in the general clerical occupations program include typing, shorthand, job preparation, transcription, medical/clerical training and receptionist training (filing, business machines and advanced typing).

- General Education Curriculum

In the area of general education, pre-vocational courses and tutoring is offered for all students who require fundamental training in reading, English, oral communications, math and GED preparation.

- Computer Training Facility

The computer training program would be operated by the San Francisco Community College District. It would provide up to date training in computer operation, computer programming including basic programming facility with user oriented languages BASIC, FORTRAN, and SPSS. No such program is presently offered by the community colleges although the college district and local corporate representatives have indicated there is a substantial business demand for persons with computer skills.

The Skills Training Facility would also provide expansion for the following on-going programs presently offered in three major training areas at the Bayview Hunters Point College. The existing program areas are in Vocational Train-

ing, Pre-Vocational Education, and College Extension Courses. Vocational Training is provided in the use of word processing equipment, including the use of state-of-the-art stenographic and word processing software. Word Processing is a six-month training program. Vocational Pre-training is also provided in test preparation for postal and police examinations. These are six week courses designed to help students to pass the civil service examinations.

Pre-Vocational Education is provided on an individual tutorial basis including a Right to Read program designed to help students to develop competence in reading and math skills.

The College offers a series of extension courses from the University of California, San Francisco State University, and Cogswell College. These extension courses are offered in a variety of subject areas depending upon local student interest and the availability of course funding. These extension programs would also be relocated to the Southeast Facility.

Community Benefits

The immediate benefits of the facility would be an increase in the numbers of students served by job training programs, a more extensive set of educational and training services, provision of new training, placement and counseling services to facilitate entry into the job market, and on-site day care facilities. In the long-term the facility should contribute to a reduction in unemployment and an increase in educational and income levels, as well as a positive amelioration of residents' negative perceptions regarding the Southeast Treatment Plant.

Market Demand for Skills Training

Many factors combine to determine the occupational skills required by local employers. Among the more important are the kinds of services produced by the local economy, relative differences in growth rates among industries, and the need to replace workers leaving the labor force. This region, especially San Francisco, serves as a major center for financial, distributive, and governmental activities, all of which

have a predominantly white collar work force. During the 1970's about 23 percent of these local workers were employed in clerical occupations.

Professional, technical and kindred workers are a growing segment of the Bay Area labor force. This employment category is expected to register the second fastest rate of growth among all major employment groupings through 1980. The proposed Skills Center curriculum will train workers for growing consumer demand areas in the medical and health services and computer programming and operation.

However, more new workers will be needed in clerical occupations than in any other major employment category in the Bay Area. This demand arises from both a high occupational replacement rate and the effects of employment growth due to downtown development in San Francisco. The Skills Training curriculum is designed to provide clerical skills for entry into this high demand employment area.

Within the growing service occupations sector primary growth areas within the region include the security and medical and health services fields. Skills Training curriculums in para-medical services and pre-training police employment programs both are designed to prepare area residents for employment opportunities in these fields.

A further indication of potential market demand for Skills Training graduates is provided by the employment placement experience of existing training programs. Both the Hunters Point Skills Center and the Bayview Hunters Point College report a successful job placement experience for 75-80% of the graduates of their vocational programs.¹³

Capital Costs

The capital costs for the buildings and equipment of the Skills Training Facility would primarily be funded with a State Clean Water Grant as a mitigation for the negative effects of the Southeast Treatment Plant expansion. An additional 10% funding may be available for the Skills

¹³ The market demand analysis is based upon: State Department of Transportation, Manpower Needs - 1975-1980, San Francisco/Oakland, SMSA; additional information supplied by training facilities in the Bayview Hunters Point Community.

Training component as part of an alternative facility for the use of wastewater by-products.

Operating Costs

The cost of labor would be the major operational cost of the Skills Training component. Training program payroll costs are to be the responsibility of the particular training agencies and programs utilizing facility space. Major facility management and administration costs are expected to be met by utilizing user fees from the various skills training programs on the site. Facility user fees would be paid to the non-profit management entity. If a number of different training and educational programs are included within the Skills Training Facility, there would be an educational facility site manager who would facilitate the physical operation and scheduling of the different programs. Under all circumstances, the final administrative authority, decision-making mandate and fees and revenue collecting entity would be the non-profit corporation as the overall facility management.

Social Psychological Benefits

The community Skills Training Facility would provide a substantial increase in the existing community skills programs. Improvement of job training and job creation capacities has been identified as a major community priority in the community household survey. The facility would probably then be perceived as a substantial enhancement of the existing community services.

Visual/Esthetic Benefits

The Skills Training Facility would provide a new visually attractive community facility and surrounding landscaped grounds on a site clearly visible from the main arterial in the immediate project area, Oakdale Avenue. It would provide a substantial visual enhancement when contrasted with present land uses on the site.

ENVIRONMENTAL IMPACTS OF SELECTED PLAN

Impact on Energy Resources

Given the fact that the major source of energy to operate the Greenhouse/Skills Training Facility would be provided by the waste methane gas produced by the adjacent treatment plant, the impact on energy resources will be relatively minor. In fact, the use of the waste digester gas may indeed provide incentive to other municipalities to use the methane gas for similar operations. Purchased electrical energy would be used in the lighting and cooling of the facilities and in the operation of greenhouse equipment and battery-powered vehicles. A comprehensive energy conservation program would be implemented to reduce the consumption of non-renewable fuel sources to minimum levels. Diesel fuel would be used in the operation of the composting equipment, as methane is not an adequate fuel source for internal combustion engines because it is not sufficiently high quality, concentrated fuel.

Impact on Waste Production

The Greenhouse Facility would be a net conserver of resources in that sewage sludge from the Southeast Treatment Plant and waste products from local industry would be composted and recycled on site for use as the greenhouse bedding medium. All of the waste plant materials for the greenhouse operation would be composted as well. The Training Facility would be generating typical sewage loads for a school training program. No hazardous wastes would be generated.

Impact on Ambient Noise Level

The greenhouse operation would be relatively quiet in that all vehicles and material handling equipment would be battery-driven. If a shredder is required in the composting operation, some noise impact would result during the periods of machinery operation. Otherwise the composting program would have minor noise impact. Little noise impact would result from the Skills Training Facility except a degree of noise from vehicular access and egress.

Impact on Air Quality

The Greenhouse/Skills Training Facility would have a positive impact on the air quality characteristics of the adjacent

community in that the greenhouses and garden plots would help filter out particulate matter from the air. The composting operation has the potential for creating objectionable odors if the composting windrows are not managed properly. Odors can be kept at a minimum through careful regulation of moisture of the composts and application of aerobic composting methods.

Impact on Visual Characteristics of Neighborhood

The Greenhouse/Skills Training Facility would offer a visual amenity to the Bayview Hunters Point community. The greenhouse structures with their interesting geometric shapes, translucent colors, and cool green interiors will be a welcome diversion to the pale industrial landscape of the surrounding community. The perimeter of the site will be landscaped with foliage trees.

Social Benefits of Facility

Skills training and job opportunities in addition to job placement services would be available for the unemployed adults and youths in the community. The new Skills Training Facility and the Greenhouse Facility in combination with the production of plant materials and compost for gardening and landscaping of local homes, neighborhood parks and roadways would contribute to the physical environment for the Bayview Hunters Point community. In the long term the Skills Training and employment features of the facility should increase community income and provide additional job opportunities for the unemployed and underemployed.

Irrevocable Environmental Impacts

No irrevocable environmental impacts to the flora, fauna or bio-physical resources of the local environment will result from the construction and operation of the facility. The only environmental impacts resulting from the Skills Training facilities will be those normally associated with the operation of schools and businesses such as energy use (minimized through use of methane for space heating), and sewage and waste production.

VI. PRELIMINARY DESIGN AND COST ESTIMATES

COST ESTIMATES

Cost and Revenue Assumptions

The estimated capital costs for building construction and site development presented in this document and summarized in this chapter are based upon current construction costs for a variety of building types proposed for the Greenhouse/Skills Training Facility. The cost estimates are derived from discussions with local construction and design firms and through the use of standard cost estimation manuals and are based upon January 1979 dollars. The building types and their estimated capital costs per square foot are as follows:

- Commercial/Public Use Construction \$65.00/sq.ft.
Schools, Junior Colleges, administrative offices and stores
- Industrial Construction \$30.00/sq.ft.
Storage sheds, warehouses, service buildings with vehicular access
- Greenhouse Construction \$ 8.50/sq.ft.
- Asphalt Concrete \$ 1.10/sq.ft.
4 inch cover on 4 inch aggregate base

Operating Costs and Revenues

Operating costs and revenues associated with the facility plan have been estimated on the basis of current market conditions and similar facilities throughout the San Francisco Bay Area. For ease of comparison between alternatives, all costs and revenues are presented in January 1979 dollars. It should be noted that due to inflationary factors, actual costs and revenues of the facility would be greater than those presented in this report. The inflation factor for construction costs has averaged a fairly constant 1% per month over the past 2-3 years.¹⁴

¹⁴ Engineering News Record, April 1979, p.173.

Furnishings and Equipment Costs

Costs of furnishings and equipment are based upon informal price quotations from equipment jobbers, supply companies and catalogue prices. Acquisition of this equipment would be based upon actual bid lists and requests for bids from various product vendors. Price quotations from the vendors would likely be less than the cost estimates identified in January 1979 dollars in the report. For some product lines, cash discounts below jobber list prices are offered to public entities.

Capital Costs

The following section summarizes and documents the capital costs of site preparation, buildings, furnishings and equipment for the Greenhouse/Skills Training Facility.

◦ Greenhouse Facility Structures	\$ 680,000
◦ Warehouse/Screening and Bagging Shed	255,000
◦ Administrative Offices and All-Purpose Room	285,000
◦ Equipment and Supply Storage Shed	75,000
◦ Community Retail Store	195,000
◦ Site Improvement and Preparation	1,000,000
◦ Classroom Mall and Administration Building	3,900,000
◦ Placement and Counseling Service Building and Day Care Facilities	650,000
	<hr/>
TOTAL CAPITAL COSTS	\$7,040,000

Capital Cost of Equipment

Various types of specialized equipment and furnishings are necessary for the routine operation of the Greenhouse/Skills Center Facility. The equipment and furnishings requirements are documented in detail in Appendix A. The following is the total cost of special equipment for the two facility components.

° Greenhouse Facility Special Equipment	\$ 435,850
° Skills Training Facility Special Equipment	<u>177,933</u>
TOTAL	\$ 613,783

Start-Up and Operational Costs

The start-up and operating costs associated with the first year operation of each facility component are identified in detail in the Appendix A. These cost items are summarized in the following section. In addition to the start-up and operating costs associated with each facility component there are certain additional start-up and operating costs associated with the administrative operation of the joint Greenhouse/Skills Training Facility. These administrative costs are identified and summarized below. Labor and fringe benefits are the major elements of start-up and operating costs for the first year operation of the two facilities.

Start-up Costs

° Greenhouse Facility component	\$ 370,562
° Skills Training component	210,000
° Central Management Personnel, Site Manager, Maintenance and Security	40,000
° Misc. Administrative Legal Council, consulting fees, bonding, incorporation and license fees	40,000
TOTAL START-UP COSTS	<u>\$ 660,562</u>

Operational Costs

◦ Greenhouse Facility component	\$1,102,500
◦ Skills Training component	1,420,000
◦ Central Administration Personnel, Administrative expenses, Site Manager, 2 Maintenance, 1 Secretary, 1 Security	93,000
◦ Misc. Administrative Fees Legal services, accounting, insurance, etc.	50,000
	<hr/>
TOTAL OPERATIONAL COSTS	\$1,665,500

Funding of Start-up Costs

Funding of start-up costs would be expected to come primarily from the Clean Water Grant Funds. The major portion of start-up funding is related to necessary technical training and organization for the facility. This start-up funding may be substantiated as a necessary step for implementation of an innovative program for reuse of wastewater treatment by-products.

Funding of Operational Costs

Operating costs of the Greenhouse Facility would be met from revenues generated from product sales. Operating costs of the Skills Facility component would be the responsibility of the existing skills training institutions and organizations. Personnel and administrative expenses for this facility component would be provided by user organizations from their existing and projected funding sources. In the event of cutbacks in their funding sources, they would bear the financial burden of meeting operational costs.

Central administrative costs of \$143,000 a year would be covered by rent fees or revenue from the Greenhouse Facilities and user fees from the Skills Training organizations.

PRELIMINARY DESIGN

Design Objectives

The Site Plan for the Greenhouse/Skills Training Facility, illustrated in Exhibit 9, is based on preliminary design objectives developed by the consultant team.

Skills Training Facility

The following criteria were met by locating a campus mall of one and two-story structures on a prominent point of the project site facing Oakdale Avenue, the major community arterial adjacent to the project site.

- Creation of interesting and pleasant views and vistas of the site from elevated areas in the Study Area. The design concept utilizes a modular mall designed to create an array of geometric and landscaped forms which maintain the low profile scale of the surrounding area.
- Invitation of community participation through accessible and highly visible location of the Skills Training Facility on a prominent corner site and designed in a low-density campus style to advertise its presence in the community.
- Location of the Skills Training Facility in a multiple of one and two-story structures as a functional solution maintaining conformity with Master Plan height limit of 40 feet and the bulk and mass of adjacent surrounding development.
- Placement of the Skills Training Facility in an area removed from conflicting land uses (e.g. the compost facility).

Additional design objectives were established for the affiliation of the Skills Training Facility with the Greenhouse Garden Facility.

- Separation of the Skills Training from the Greenhouse Facility with an integrating link between the two. The two facilities are separated on

LEGEND:

COMMERCIAL GREENHOUSE

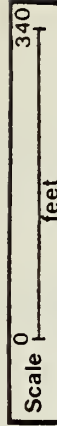
1. Greenhouse Administrative Offices and Meeting Room/Lunch Room
2. Community Retail Store
3. Greenhouse Structures
4. Service Building
5. Modification of Existing Building: Screening and Bagging Shed/ Vehicle Storage
6. Outdoor Growing Area
7. Composting Operations

SKILLS TRAINING CENTER

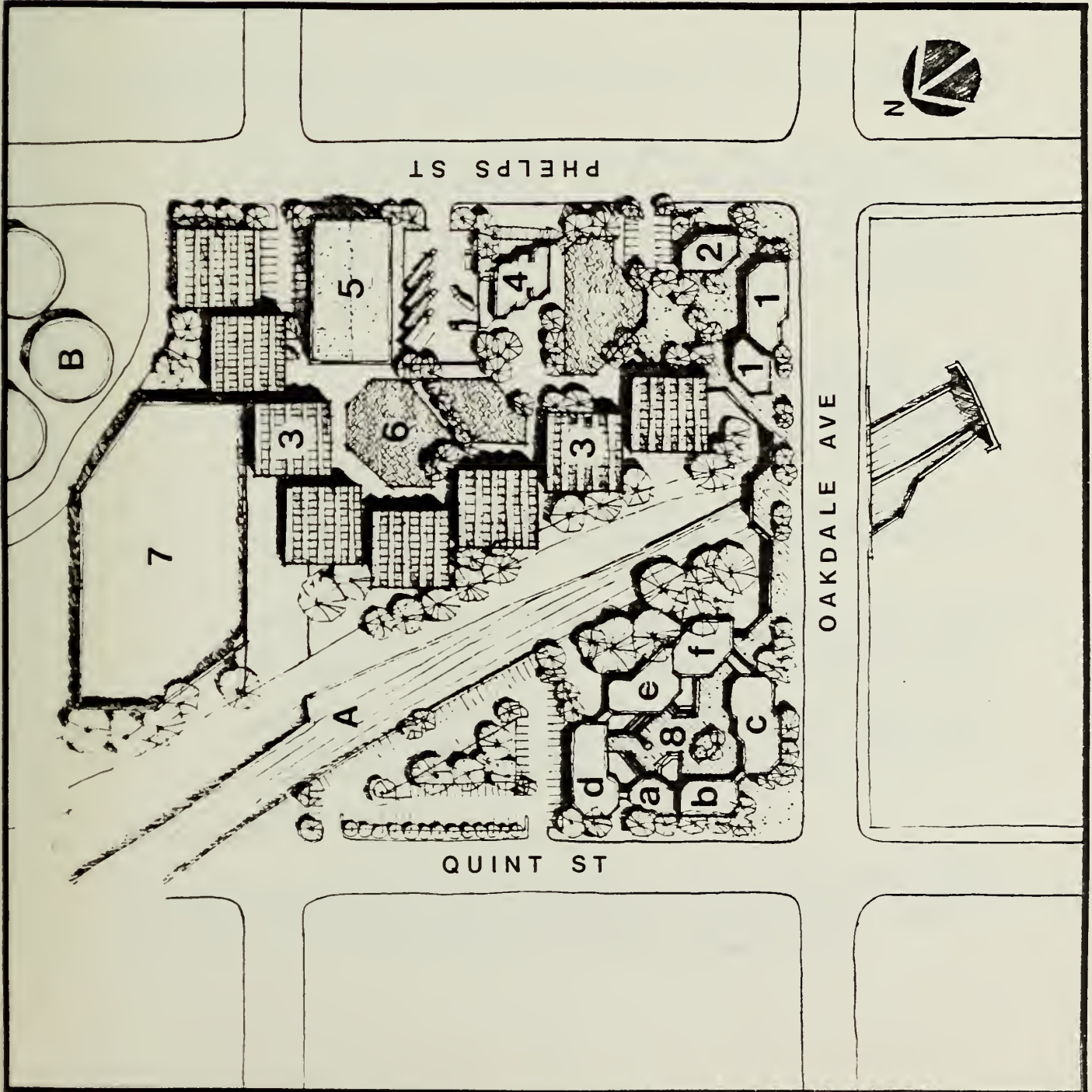
8. Skills Center/Bayview Hunters Point College Administrative Offices and Classrooms
 - a. one-story classroom
 - b. one-story administrative office
 - c. one-story administrative office
 - d. two-story classroom
 - e. two-story classroom
 - f. two-story classroom

OTHER

- A. Existing Railroad
- B. Southeast Treatment Plant



COMMUNITY FACILITY AT THE SOUTHEAST TREATMENT PLANT
JEFFERSON ASSOCIATES CURTIS ASSOCIATES ISHIMARU O'NEILL & SIMMONS
GREENHOUSE AND SKILLS TRAINING FACILITY SITE PLAN
EXHIBIT 9



the design site plan but the public facilities of the Greenhouse Facility share the Oakdale Avenue frontage providing joint public access to the entire facility operation.

- Provision of special parking and easy access for handicapped persons to all public use areas of the site.
- Location of the Skills Training Facility upwind from any possible objectionable sources of odor.

Greenhouse Facility

The following design criteria were developed as design objectives for the Greenhouse component of the Greenhouse/Skills Training Facility.

- Use of outdoor planting areas for visual and decorative screens. In the conceptual plan the outdoor planting areas have been clustered on the southeast perimeter to create an attractive textured greenspace for the adjacent residential area and for the elevated residential viewpoints from the southwest and southeast.
- Use of a translucent network of greenhouses arrayed in a non-linear fashion as a visual display and decoration. The greenhouse rooftops have also been sculpted with a series of steep shed roofs to enhance their visual appearance.
- Ease of greenhouse construction and operation by the clustering of the greenhouse facilities on level land.
- Location of the compost site on level land adjacent to the Southeast Treatment Plant to facilitate compost operation and transport of sewage sludge.
- Location of greenhouses, service buildings, warehouse and bagging sheds in areas with vehicular access via carts or front-end loaders.

Design Perspective

The Artist's rendering (see inside front cover) provides an aerial perspective of the proposed Greenhouse/Skills Training Facility. This perspective drawing suggests the design relationship of the various facility components.

VII

Implementation Arrangements

VII. IMPLEMENTATION ARRANGEMENTS

This is one of the more difficult and uncertain aspects of the project. Unlike the more conventional facility planning projects, no established structure exists to manage and operate the community facility. Therefore, a mechanism must be created. The creation of this structure is complicated by the following:

- (1) There are few, if any, precedents that can serve as a model,
- (2) The integration of community representation and technical/business experience is difficult to accomplish
- (3) The selected structure must recognize the diverse interests operating within the Bayview Hunters Point community, thereby making a consensus for an operating framework unlikely.

The form of the facilities governing mechanism will not determine the facilities ultimate success or failure. It may, however, influence its revenues and other program benefits. It is therefore extremely important to seek a form of organization that best suits both the efficient management of the facility and the effective pursuit of its social and economic objectives.

ORGANIZATIONAL STRUCTURE AND GOALS

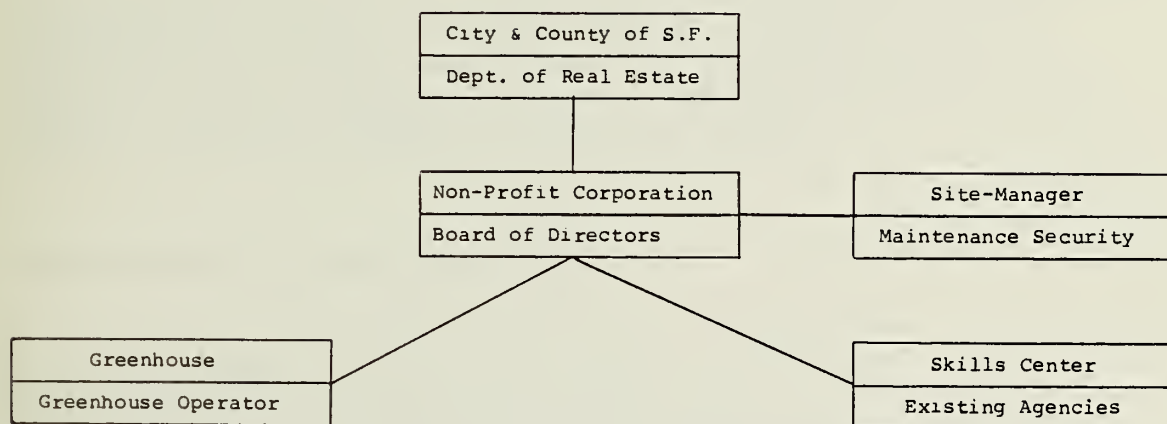
The facility's managing organization, the Greenhouse Facility and the Skills Training Facility should be organized as distinct entities with specific responsibilities. Given the wide variations in the activities of the participating parts of the facility, the selected organizational structure must accommodate operational efficiency as a primary concern. To give each facility component the maximum opportunity for success, specialized concentration of resources and expertise is critical.

This suggests distinct operational entities for the day-to-day operation of the facility. Although the organizational entities would operate largely independent of each other, they would have in common many goals and objectives. Self-perpetuation, stability of operation, a high rate of return in revenues or trainee placements, growth, satisfaction of community participants, enhancement of their positions in their fields, technological leadership and innovation are appropriate examples of their shared goals.

The three operational entities suggested for facility organization and management are described below and illustrated in Exhibit 10.

EXHIBIT 10

CONCEPTUAL ORGANIZATIONAL STRUCTURE OF THE COMMUNITY FACILITY AT THE SOUTHEAST TREATMENT PLANT



Facility Managers

This would be a non-profit Corporation with a Board of Directors drawn principally from the surrounding area but also from special skill areas such as business law, horticulture, accounting and other appropriate disciplines. The Board of Directors would be responsible for the management of the facility, the establishment of the terms under which the facility is to be used and the administration of the revenues of the facilities. A corporate charter would establish the boundaries of administrative discretion.

Commercial Greenhouse Garden Facility

The Greenhouse Facility would be leased to a private entrepreneur who would operate a business in the Greenhouse Facility and pay rent in the form of a minimum based on a fixed fee, or a maximum based on a percentage of gross revenues, whichever is more. The concessioner would be responsible for meeting the terms established in his lease agreement.

Skills Training Facility

The Corporation Board of Directors would lease the Skills Training Facilities to individual vocational training programs who would in turn be solely responsible for administering their curricula. It would be at the discretion of the Corporation Board whether and what to charge the Skills Center tenants as rent.

INSTITUTIONAL RESPONSIBILITIES

City and County of San Francisco

Title to the land and buildings would be held by the City and County of San Francisco's Department of Real Estate or another appropriate City department. This may require an administrative transfer of land ownership from the Department of Public Works to the Department of Real Estate, the official leasing agent for the City and County of San Francisco.

Corporation Board

The Corporation Board would enter into a Master Lease Arrangement with the City's Department of Real Estate. To facilitate acceptability of the lease to regulatory agencies, restrictions could be placed on the use of the land. This would assure that a public purpose is being satisfied partly to meet IRS requirements which take a dim view of non-profit community corporations where public review and approval are not involved.

The Corporation Board would receive its operating revenue through fees collected from the Greenhouse and Skills Training Facility. This revenue could be generated from fees, share of profits (in the case of the Greenhouse only) or other suitable arrangements.

All revenue would be reinvested for the development and maintenance of the facility. Funds would also be used to hire a site manager, janitorial personnel and/or security persons. These personnel would be responsible for routine building maintenance of public access structures and maintenance of common areas such as plazas, toilets, roadways, etc.

Greenhouse Facility

The Greenhouse entity (assuming a partnership or corporate structure) would sublet the Greenhouse from the Corporation Board. The terms and conditions of the sublease arrangement would be subject to negotiation. The primary objective of the Greenhouse would be to generate revenue and profits, thereby providing employment and on-the-job training benefits.

A broad range of horticultural and agricultural commodities would be produced. The diversity of production would help make the enterprise resilient to unpredictable changes in wholesale and retail market conditions. A description of some of the choices of crops that could be economically raised in the Greenhouse Facility is discussed in Appendix A: Detailed Plan Description.

Skills Training Facility

The existing skills training programs would be given an opportunity to lease space in the facility. These programs would provide necessary staff and equipment and be responsible for satisfactory operation of their programs.

As an inducement to lessees and in order to achieve maximum occupancy at the earliest possible time, the Corporation Board of Directors would provide essentially a turn-key operation including specialized equipment.

STEPS TO IMPLEMENTATION

The following are necessary steps that will determine the successful implementation of this facility:

- The facility plan must be submitted to appropriate city and state agencies for approval. The procedures required for this process are outlined in Exhibit 6, page 40.
- A consultant must be retained.

Pre-Design Planning

- Determine composition of non-profit corporation governing body
- Determine which city agency will have general jurisdiction over the project
- Begin negotiations for master lease arrangements between the Corporation Board of Directors and City and County of San Francisco
- Develop schedule for project development
- Identify major tenants and begin negotiations for lease arrangements
- Finalize space schematics
- Refine cost estimates and budget

Site Analysis

- Detail site utilization
- Conduct on-site and off-site utility studies
- Conduct soil and hydrology studies

Schematic Design

- Develop architectural schematic design including civil, structural, mechanical, electrical landscape, and interior concepts
- Finalize probable construction costs

Design Development

- Develop construction specifications and working drawings
- Develop equipment specifications and equipment bid documents

VIII

Appendices

APPENDIX A: DETAILED DESCRIPTION OF PLAN

INTRODUCTION

The following Appendix provides a detailed description of the conceptual design for the Greenhouse/Skills Training Facility. Because the two facility components are expected to operate as autonomous units on the seven acre site, the conceptual plans are presented separately.

A summary of the capital costs of construction, site development, furnishings and equipment of the two components is presented in Chapter 6, Preliminary Designs and Cost Estimates. An overall description of the management function and governing mechanism for the two facility components is presented in Chapter 7, Implementation Arrangements.

The two plan components would be expected to operate as separate entities. The personnel, space and equipment requirements, operating costs and revenues and facility objectives are identified in the following two detailed descriptions of the plan components.

COMMERCIAL GREENHOUSE GARDEN FACILITY

This plan describes a commercial Greenhouse/Garden Facility using environmentally sound technologies for the production of a broad range of horticultural/agricultural commodities for retail and wholesale marketing in the greater Bay Area region. Several associated activities would be planned for the site in coordination with the primary Greenhouse Facility; one of which includes a commercial composting operation for the conversion of sewage sludge from the local treatment plant with the plant wastes from local industry into a potting medium for use in the greenhouses and for marketing to the public.

The core facility would consist of 80,000 sq. ft. of greenhouse and an accompanying 30,000 sq. ft. of outdoor growing space that would be used for the commercial production of house plants, tree crops, woody ornamental shrubs, herbs, fresh specialty vegetables, cut flowers, floral greens, mushrooms and vegetable seedlings. The greenhouse units would be constructed from commercial industry materials adapted for methane

heated steam radiators. Waste methane gas from the Southeast Treatment Plant would be used as the primary source of heat for the greenhouses. Labor intensive operations would be emphasized in plant production to provide the optimum number of job training and employment opportunities.

A large training program in horticultural skills would be developed to coincide with greenhouse production. The following skill areas would be emphasized: plant propagation and horticulture techniques, greenhouse management, integral pest control, marketing technology and commercial composting. Benefits from this facility are as follows:

- Develop job opportunities in environmentally sound vocations
- Provide physical amenity to neighborhood
- Develop an economically viable community-owned industry
- Create training program in horticultural and agricultural arts
- Recycle the waste solids and methane gas from the Southeast Treatment Plant
- Develop composting as a viable method of solid waste management
- Provide high quality horticultural commodities to the retail nursery industry as well as to neighborhood community gardens

The center would serve as a community education center in environmental technologies. Meeting and classroom space would be provided for public seminars in home food production, urban reforestation, and care of house plants. Accreditation could be arranged through the local community colleges.

The greenhouse would provide needed native plant stock for the Department of Water Resources, the California Division of Forestry, the California Conservation Corps and California Department of Transportation.

A retail nursery/garden center would be operated on site for the direct sale of plant materials to the public. A diverse marketing program would be undertaken to promote the sale of goods through wholesale and retail outlets throughout the Bay Area.

Operational Requirements

Governing Mechanism

The Greenhouse Facility would be leased to a private entrepreneur who would operate a business in the Greenhouse Facilities for a profit and pay rent in the form of a minimum based on a fixed fee, or a maximum based on a percentage of gross revenues, whichever is more. The concessioner would be responsible for meeting the terms established in his lease agreement.

The non-profit Corporation would function as the overall administrative and management body for the Greenhouse and the Skills Training Facility components. Facility user fees would be paid by the two facility components to the non-profit management entity. The final administrative authority, decision-making mandate and fees and revenue collection entity would be the non-profit Corporation as the overall management entity.

Personnel/Labor

Labor intensive activities would be optimized in order to promote jobs as well as intensify production. Jobs would be available on the laborer, sales, managerial and administrative levels in the operation and maintenance of the commercial greenhouse and composting industry in roughly the following numbers:

◦ Laborers of various skill levels	40 - 45
◦ Sales and marketing personnel	25 - 35
◦ Managers and supervisors	5
◦ Administrative personnel	<u>5</u>
	75 - 90

Facility Operation

Operation of an efficient wholesale greenhouse facility requires the erection of commercial quality greenhouses,

emphasizing energy-efficient structures complemented by specialized tools and machinery. These types of structures would be both cost-effective to build and designed for low maintenance operation. The greenhouses would be equipped with thermostatically controlled fans for ventilation and air circulation. Gas heaters adjusted to use digester quality gas would be installed to provide supplemental heat. The digester gas would fuel a boiler for the production of steam to supply radiant heat through furnaces located under the waist-height growing benches in all eight 100 x 100 greenhouses. The boiler would also supply steam for soil and compost pasteurization units.

The composting operation site, a 60,000 sq. ft. area, would have to be graded for proper drainage. An asphalt or concrete surface would be required to prevent soil from mixing with compost and to enable year-round operation of the composting facility. The compost would consist of equal parts of sewage sludge (20% solids), organic vegetable wastes from the Hunters Point produce terminal and sawdust and woodchips from the local cabinet shops and lumber yards for a first-stage compost mixture of 40% solids and 60% moisture. The incoming material would be shredded, mixed and assembled into long windrows, 20 feet wide, 5 feet high, and 60-100 feet long. A "Coby" composter machine would process the material at regular intervals to produce finished compost in three to five weeks. The compost would be screened and sifted. Approximately one-third of the compost would be used as potting and planting mix in the greenhouse operation.

A bagging facility is desirable for the packaging of smaller quantities of the finished product.

Furnishings and Equipment

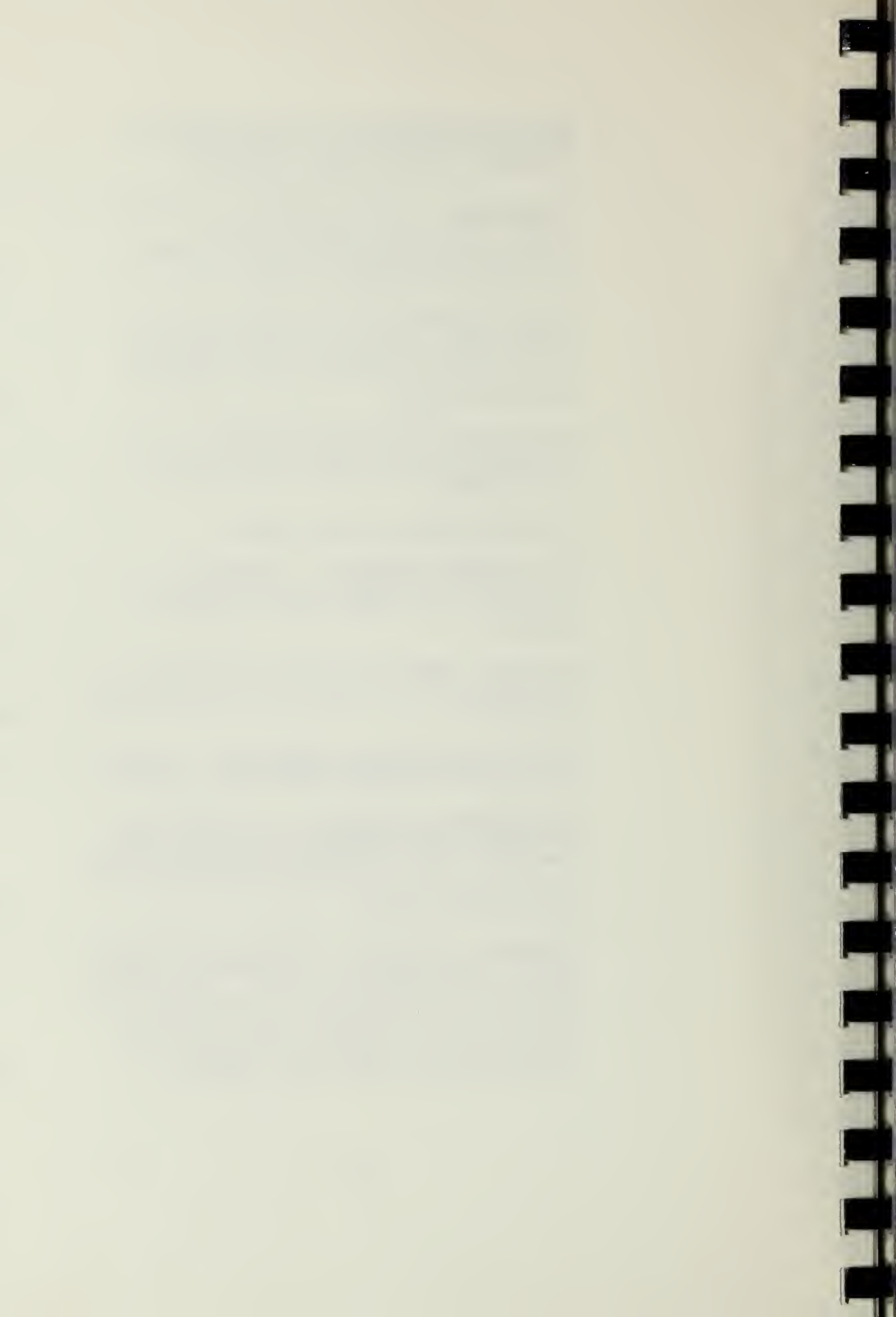
The following are the required hand or battery powered transport and material handling equipment essential in the efficient operation and maintenance of the Greenhouse Facility component.

All vehicles used in the routine operation of on-site greenhouse functions would be either hand or battery driven in order to minimize noise and pollution levels.

- Electric lift truck: Prime Mover Model RC counterbalanced control ride truck for use in warehouse stock for both the greenhouse and composting operations \$ 15,000

- Electric utility charts: Taylor-Dunn model SC stockchaser electric charts and trailer set-ups for transporting materials and plant stock throughout greenhouse complex. Four at \$3,500 each. \$ 14,000
- Electric personnel carrier: Taylor-Dunn Model B personnel carrier with trailer set-ups for transporting staff and visitors through the site. \$ 4,000
- Floor hand trucks: Nutting hardwood deck floor charts for transporting plant materials through greenhouse complex. Twenty at \$250 each. \$ 5,000
- Warehouse hand trucks: Nutting hardwood frame hand trucks for moving stock in warehouse and service building. Ten at \$150 each. \$ 1,500
- Nutrient mixers: Anderson ratio feeders series "S" for injecting nutrient solutions into watering lines. Three units at \$1,750. \$ 5,250
- Spray equipment: Assorted manufactured items for spray application of water and nutrients. \$ 5,000
- Soil mixers: A mixer unit for blending and proportioning growing medium based on composting sewage sludge \$ 3,500
- Compost maker: (Optional) 25 ton self propelled Colby Composter for aerating and mixing the compost windrows. This machine is not critical but its use does improve the quality and marketability of the finished compost. \$ 65,000
- Sifter/screener: Royer 48 inch sifter/screener for processing the finished compost into a form suitable for direct greenhouse application or for retail packaging. \$ 20,000

- Bagging equipment: An assortment of hand bagging equipment including funnels, staples and labelers. \$ 2,500
- Dump truck: General Motors 12 foot, 5 ton dump truck for picking up bulking agents and delivering loads of finished compost to job site. \$ 14,000
- Boiler System: For circulation of steam heat utilizing methane gas as fuel source. Kiwani M-2/65 boiler, 2.6 million btu/hour boiler and P6P methane burner. \$ 20,000
- Forced Air Circulation System: For circulating steam heat from boiler (1P6 Roper). \$ 40,000
- Concrete Block Boiler House \$ 8,000
- 16" trough conveyor: Conveyor, bearings, and support structure for movement of sludge from treatment plant. \$ 50,000
- Hoists: Manual and light electric, for movement of compost and greenhouse supplies. \$ 10,000
- Soil sterilization equipment: A steam sterilizer for soil mixes and compost. \$ 2,500
- Maintenance equipment: Equipment and materials for servicing and repairing vehicles and equipment including battery chargers, sanitation equipment and maintenance tools. \$ 3,500
- Shredder: Moorbank Industries Model 12 Total Chiparvestor for shredding plant material received on site. The shredder would not be required if sufficient quantities of sawdust, rice hulls and chipped plant wastes are obtained for use as bulking agent for compost. \$ 40,000



- Front-end loader: Ford 862 articulated front-end loader for handling materials and assembling windrows and loading finished compost on to trucks. \$ 27,500

TOTAL EQUIPMENT COSTS FOR ON-SITE OPERATIONS \$356,250

The following vehicles would be required for the delivery of plant materials and other greenhouse products to wholesale and retail markets. The number of vehicles are based on marketing activity necessary to achieve gross annual sales of \$1,224,000.

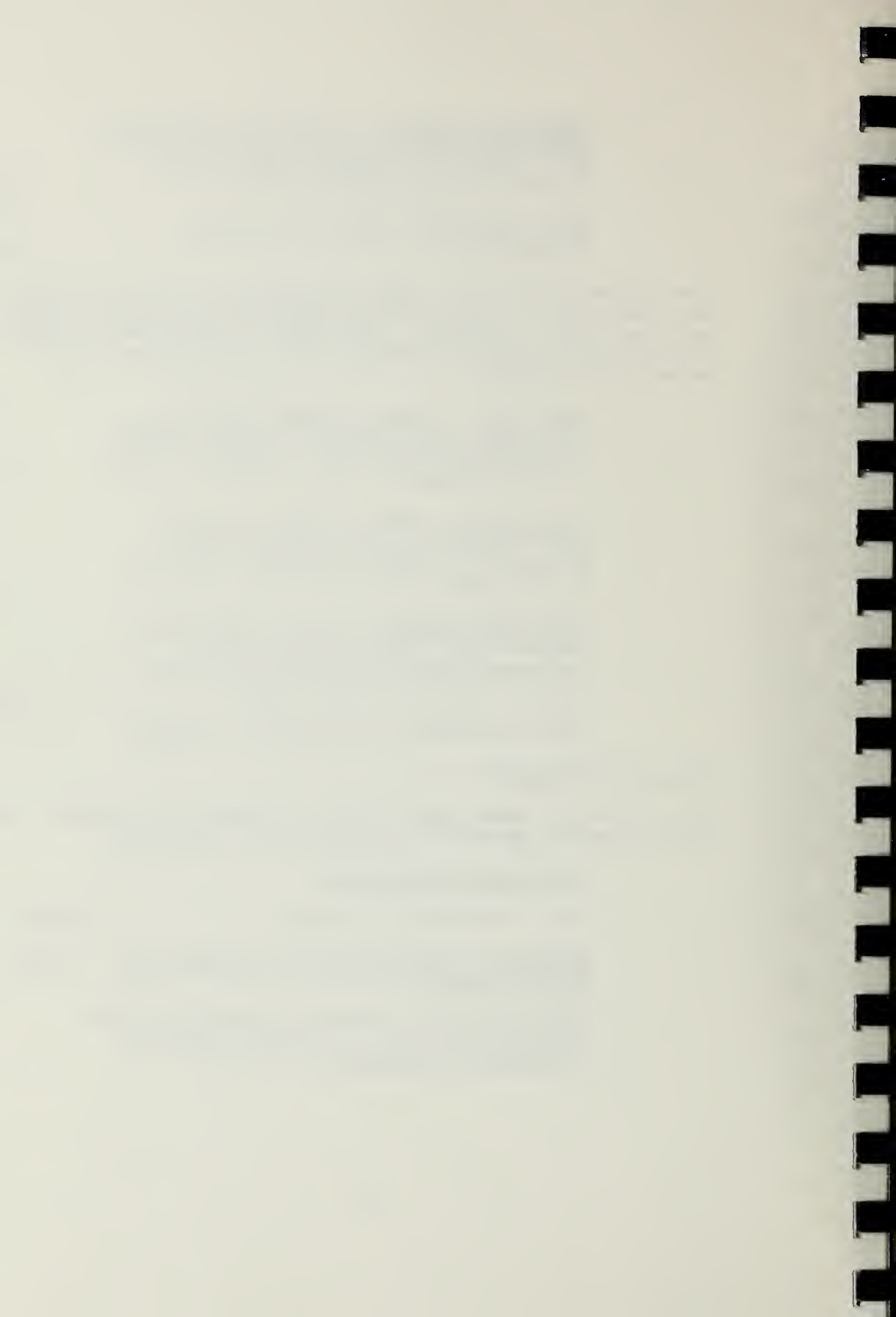
- Step vans: General Motors 15 foot step vans for delivery of large orders to wholesale and retail markets. Three at \$11,400 each. \$ 34,200
 - Trade vans: General Motors 127 max vans for delivery of small orders, primarily to retail markets. Four at \$7,600 each. \$ 30,400
 - Passenger vehicle: Compact passenger vehicles for transporting sales representatives and other managerial staff. Three at \$5,000 each. \$ 15,000
- TOTAL VEHICLES FOR MARKETING PROGRAM \$ 79,600

Space Requirements

The following space requirements represent the optimal space allocation for greenhouse and compost operations.

- Greenhouse structures
(8) 10,000 sq. ft. each. 80,000 Sq. Ft.
- Greenhouse Administrative Offices and Meeting Rooms 6,000 Sq. Ft.

Administrative offices and meeting room/
lunch room used for classes, meetings
or training sessions.



◦ <u>Warehouse/Screening and Bagging Shed</u>	16,000 Sq. Ft.
Storage for supplies and equipment.	
◦ <u>Composting Site</u>	60,000 Sq. Ft.
Open Space for compost, pre-compost, and post compost piles.	
◦ <u>Service Building</u>	2,500 Sq. Ft.
Storage of greenhouse supplies and handcarts.	
◦ <u>Community Retail Store</u>	3,000 Sq. Ft.
Direct retail sale of greenhouse products.	
TOTAL SPACE REQUIREMENTS	167,500 Sq. Ft.

Landscaping

The landscaping plan would emphasize the use of drought resistant plants native to the mediterranean climate of San Francisco. Tall-growing trees would be planted along the northern end of the project site between the proposed composting site and the sewage treatment plant as a visual screen from the digesters. Varieties of fruit trees and other edible and ornamental plants would line the facility along Phelps Street. Among the commercial greenhouse and support buildings would be plantings of ground covers suitable for use in the San Francisco Bay Area.

Product, Service and/or Benefit

The commercial greenhouse operation would produce a broad range of horticultural and agricultural commodities. The diversity of production would help make the enterprise resilient to unpredictable changes in wholesale and retail market conditions. The following is a description of the crops that could be economically raised and their proposed production area in the Bayview Hunters Point Greenhouse Facility.

- Fresh seasonal vegetable crops
10,000 sq. ft. of greenhouse space for raising of specialty crops such as winter-grown head lettuce, garlic, endive, cabbages, and cauliflower and snow peas.

- General ornamental crops

10,000 sq. ft. of greenhouse propagation area with 12,000 sq. ft. of outdoor growing area for ornamental plants such as azalia, camellia, and roses as bare root stock or as established plants.
- California native plants

10,000 sq. ft. of indoor propagation area with 5,000 sq. ft. of outdoor containers for the production of California native plants.
- Foilage houseplants

20,000 sq. ft. of greenhouse area for the raising of several varieties of ornamental houseplants such as coleus, wandering jew, spider plants and african violets.
- Seasonal flowering houseplants

5,000 sq. ft. of greenhouse area equipped with artificial lighting for the production of flowering indoor plants such as poinsetta, geraniums and chrysanthemums.
- Tree crops

5,000 sq. ft. of greenhouse area with 5,000 sq. ft. of outdoor containers for tree seedlings and saplings.
- Cut flowers and floral greens

10,000 sq. ft. of greenhouse space for perennial and annual flowering plants and 2,000 sq. ft. of outdoor space for raising of floral greens. Traditional flowers such as roses and daisies combined with unusual flowering plants such as columbine, sweet peas, and cosmos would be produced.
- Fruit trees

5,000 sq. ft. of indoor propagation space and 1,000 sq. ft. of outdoor container space for the raising of several varieties of deciduous and citrus fruit trees. A special line of dwarf fruit tree stock could be developed.

- Vegetable plant seedlings
5,000 sq. ft. of greenhouse area for production of standard vegetable crops in seedling form.
- Herbs
8,000 sq. ft. of greenhouse area and 5,000 sq. ft. of outdoor container space for herb raising.
- Mushrooms
2,000 sq. ft. of greenhouse area for raising of edible varieties of mushrooms.

Benefits and Services of Commercial Greenhouse and Community Building

The greenhouse operation would provide employment skills and training for many community people. Job skills would vary from laborer/greenhouse technician to managerial and supervisory positions. Total jobs created by the greenhouse enterprise would be in the range of 75-90 depending upon production levels. Job creation would be promoted through the establishment of labor intensive cultivation techniques and direct marketing programs.

In addition to the commercial use of the greenhouse, free public classes in horticulture and food raising would be held at the community education center. Instructors for the classes and staff support would be funded through the local vocational or community colleges.

Products, Services and Benefits of Composting Operation

The composting operation would produce a bedding mix that would be used throughout the greenhouse operations. The finished compost would be screened and sifted and then mixed with equal proportions of perlite and sand. It should be noted that the use of sewage sludge-derived compost for the production of horticultural and agricultural crops is legal under state health and agricultural statutes. However, since digester sludge could contain human pathogens and parasites, it is important that the internal temperatures of the composting process be managed so as to insure complete destruction of potentially harmful organisms. As an assurance against contamination, compost containing sewage sludge would not be used in the bedding soil of the food crops grown in the greenhouse.

Total annual production of the compost operation is estimated at 15,000 yards, 33% of which would be used in the planting mix for the greenhouses. The remaining portion would be available for use in several alternate manners. The compost could be incorporated into urban landscape or land reclamation programs. Some portion of the compost might be available for free to local residents and/or for neighborhood community gardens. Part of the compost could also be used for the production of worms, a small on-site enterprise that could conceivably provide an additional five jobs.

The composting operation provides benefit to the local communities and City of San Francisco by using waste products which otherwise would have to be hauled away for disposal. Waste sludge from the Southeast Treatment Plant, vegetable wastes from the Hunters Point produce market, and sawdust from local lumber yards and cabinet shops would be recycled at the composting center, thus helping to reduce total waste-production from local industry and commerce.

Market Demand

Market for Greenhouse Products

The market for nursery materials in the Bay Area is characterized by many small retail outlets, each purchasing as separate retail entities. Even where chain operations such as Woolworth's, Payless and Safeway have moved into the nursery business, the individual center manager has considerable discretion in taking on new suppliers of plant materials. The diffuse nature of the market allows relatively easy entry of new growing operations, provided that the plant material is of high quality and the supply is dependable.

Vegetables would be directly marketed to grocery stores, produce centers and restaurants. Several of the greenhouses could be under special management using "organic farming techniques" so that the products derived from those greenhouses could be marketed as "organic produce" at a higher price to organic food stores and restaurants. Tomatoes, peppers, cabbages and broccoli seedlings would be marketed through nurseries and supermarkets as well as be directly distributed to community garden organizations in the Bay Area. The ever increasing interest in home vegetable raising has produced high demand for seedling stock.

The herbs would be marketed to nurseries and house plant stores as small potted plants or would be raised for distribution as bagged spices to grocery stores, produce centers and restaurants. Foliage houseplants are generally easily propagated plants, labor intensive in cultivation, and are an excellent choice for direct marketing to houseplant stores, retail nurseries and supermarkets in the Bay Area. There is a large potential market for flowering houseplants and good opportunities for direct marketing to nurseries and florists, but the market is very competitive and failure to produce flowers in season means total loss of economic value.

Conifer seedlings would find an immediate market with the forest industry. Tree seedlings and saplings would also provide plants for the urban reforestation program that the State Resources Department is currently undertaking. Tree stock would be marketed directly to local municipalities for their urban landscaping program.

Direct on-site sales at the community facility, combined with sales through community organizations, churches and flea markets, would help expand the available market. Fujii Nursery in Hayward, an operator comparable in size to that which is proposed here, sells all their production on-site and purchases additional plant material from other growers just to satisfy on-site demand.

Growing interest among private landscapers and governmental agencies in using California native species is producing a large market for which there are few suppliers. The Bayview Hunters Point Greenhouse Facility could become one of Northern California's leading producers of native plants. The State Department of Water Resources, State Lands Commission, Caltrans and the California Department of Forestry are potential sources for large contracts for production of plant stock.

The use of drought resistant plant materials was borne out by the recent water shortage in the state and, being that the market is still new, there is a great opportunity to develop a viable commercial native plants operation in the Bay Area.

Documentation of Market Demand

The identification of market demand for houseplant and shrub sales was primarily based upon personal contact with informants at small 5-15,000 sq. ft. greenhouse operations in the

Worms and worm castings production could demand a relatively secure market. Worms could be direct marketed to bait and sporting goods stores and worm castings could be bagged in small quantities for sale to nurseries and house plant stores as a "super potting mix".

Documentation of Market Demand for Compost Products

The analysis of market demand for compost products was based upon a recent marketing analysis* with the identification of market demand prices based upon these sources. Market surveys of plant and nursery supplies at the retail level indicated direct sale demand for 2 cu. ft. units of bagged compost at \$26/cu. yd.

General Market Assumptions

In all cases market investigations reinforced the business assumption that the marketability of nursery and compost products is directly related to fixed production costs of land acquisition, equipment amortization, heating, raw material, and transportation costs.

The proposed facility possesses an economic edge because of its potential ability to begin operations without sizeable land and equipment payments and its inherent energy subsidy of methane fuel for greenhouse heating. Location of a substantial greenhouse operation within the greater Bay Area trading region provides an additional competitive benefit from decreased transportation and marketing costs and increased options for direct sale marketing to retail and small contractor clients.

Market Analysis of Medium-Sized Greenhouse Operations

Documentation of the viability of the proposed Greenhouse Facility is also based upon the market experience of medium-sized greenhouse operations in the greater Bay Area. Determination of specific greenhouse productivity and greenhouse revenues was based upon the smaller 5-15,000 sq. ft. green-

* "Exploration of Local Markets for Compost Derived from Berkeley Municipal Refuse", for Garetson, Elmendorf, Zinov, Reibin and from practical marketing experience from the engineer and operator of the experimental Berkeley Compost Program.

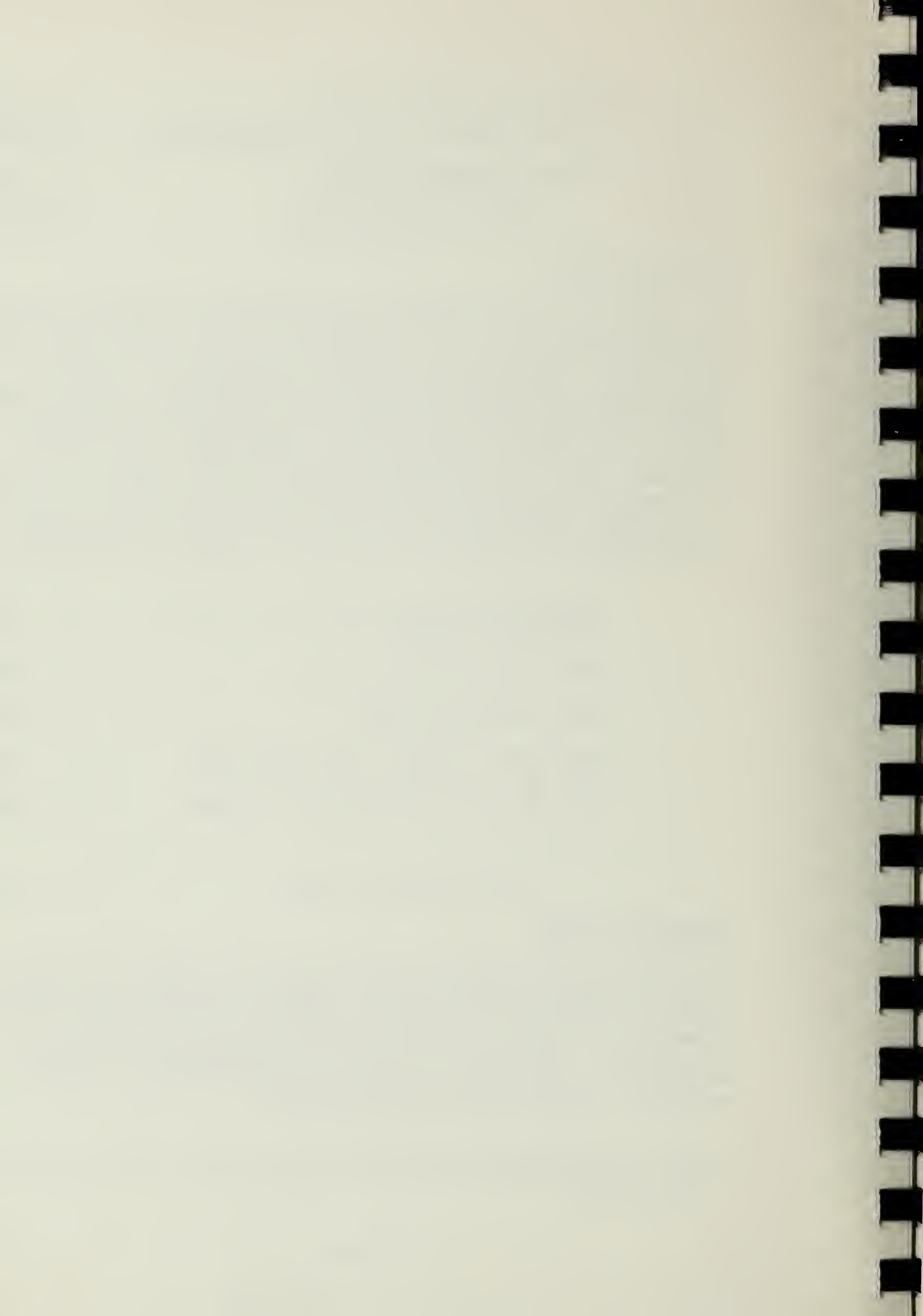
houses because their labor intensive, modular character closely parallels the style of operation planned for the project site. However, contact was made with medium-sized operators similar in the size of their operations to the 80,000 sq. ft. planned for the Greenhouse Facility. These medium-sized greenhouse operations are primarily engaged in the production of indoor houseplants.* The production of outdoor shrubs for the Bay Area is dominated by a large horticultural facility, Oki Nursery, in Sacramento.

Capital Costs

All capital costs are estimated on a square foot basis and are subject to vary depending upon actual building design and size. With the exception of site preparation costs, all cost figures reflect the cost of the facilities and equipment for the Greenhouse component of the Greenhouse/Skills Training Facility. The site preparation costs reflect the site work costs for both facility components over the entire seven acre parcel.

◦ Site Preparation, demolition, grading roads for seven acre site.	\$1,000,000
◦ Greenhouse Construction	680,000
◦ Administrative Offices/All Purpose Room	285,000
◦ Warehouse Facility/Screening & Bagging Shed	255,000
◦ Composting Site/Asphalt Concrete Surface	66,000
◦ Equipment and Supply Storage Shed	75,000

* Medium-sized nurseries in this category include Fujii Nursery, with 50,000 sq. ft. of mixed horticultural and garden starter plants in Hayward; Coastside Gardener Association in the production of exclusively indoor plants at several locations in Half Moon Bay; California Evergreen operating a greenhouse facility for flowering and non-flowering indoor plants and terrariums in Half Moon Bay; and Datello exclusively growing houseplants in Daly City. California Evergreen also operates a direct wholesale marketing facility at the San Francisco Flower market.



Standard operational expenses for greenhouse heating and purchase of soil mix would be minimized through the use of treatment plant digester gas heating and the on-site composting of sewage sludge and plant wastes for use as growing media.

Operational expenses can be estimated as follows:

Production materials, utilities, equipment maintenance, administrative expenses, consulting fees, rental fees, and equipment replacement funds	\$ 306,250
Salaries for forty-three greenhouse laborers and horticultural technicians	428,750
Salaries for thirty sales and managerial personnel	<u>367,500</u>
TOTAL OPERATIONAL COSTS	\$1,102,500

Revenues

Following a six month to a year training period, the Greenhouse Facility would be expected to generate monthly gross revenues of a \$1 a sq. ft. for greenhouse and \$.40/sq. ft. of outdoor grown produce.* Revenues from the composting operation are estimated at an average of \$8/cu. yd. The sale of compost products could be augmented by the sale of worms and worm castings.

The estimated annual gross revenues of the Greenhouse Facility are as follows:

Sale of horticultural/agricultural products of greenhouse	\$ 960,000
Sale of horticultural/agricultural products of outdoor growing space	144,000
Compost sales	<u>120,000</u>
TOTAL ANNUAL GROSS REVENUE	\$1,224,000

Projected annual revenues for the Greenhouse Facility are expected to exceed operational expenses by \$121,500.

* These figures are based on revenues generated from existing commercial greenhouse facilities in the Bay Area.

Use of Environmental Technologies

Several energy efficient and cost saving technologies would be employed in the commercial operation in order to optimize production and reduce costs. These are summarized in three use areas of environmental technologies.

Use of Treatment Plant Waste Products: Digester Gas

The use of waste methane gas generated from the Southeast Treatment Plant would provide the primary heating source for the greenhouse and facility structures.

Presently the daily production of gas from the digesters at the Southeast Treatment Plant averages 400,000 cubic feet during the winter months and 700,000 cubic feet during the summer months. (The smaller volume of gas during the winter months results from frequent sewage by-pass during rain storms.) Of the total current production, less than 10% is presently used in the operation of the sewage treatment facilities and the remaining 90% is flared off as waste digester gas. Therefore, the total daily quantity of waste gas available for use by the proposed Greenhouse/Skills Training Facility is in the range of 360,000 to 630,000 cubic feet. Gas production from the expanded treatment plant will be roughly 30% greater than present production.* Assuming that the expanded treatment plant will continue to use only 10% of the digester gas, the total quantity of available digester gas from the expanded treatment plant is somewhere between 450,000 and 800,000 cubic feet per day.

The following calculations are performed to determine the approximate percentage of digester gas production from the expanded sewage treatment plant that would be required to heat the Greenhouse/Skills Training Facility during the coldest winter months.

The desired interior greenhouse temperature is an average of 70°F. (This will vary between 65°F. and 75°F. depending upon the type of plant being grown.) The average daily temperature for a relatively cold winter day in January is 40 degrees F. Given the fact that .70 Btu's of heat is lost through the exterior surfaces of the greenhouse structures per hour per square foot of exposed surface area per degree difference

* Telephone conversation, Mr. Curburn, Southeast Treatment Plant Site Operations Manager, February 13, 1979.

between outside and inside temperatures, then 48,960,000 Btu's of heat will have to be supplied to the greenhouse during a 24 hour period to maintain an interior temperature of 70°F. The projected quantity of digester gas available from the expanded treatment plant during January is 450,000 cubic feet per day. Since the energy value of the digester gas is 600 Btu's per cubic foot, the total energy production available for greenhouse heating is roughly 280,000,000 Btu's per day. Assuming that a methane fueled boiler-steam heating system operates at a thermal efficiency of 75%, 65,000,000 Btu's of heat, or roughly 25% of the treatment plant's projected gas production would have to be used on the coldest days of winter.

It can be assumed that another 5 to 10% of the digester gas production would be needed to heat the other facilities of the Greenhouse/Skills Training Facility during the winter. Total digester gas required for heating would be 30 to 35% of the total gas production during the winter months. This figure would be considerably lower during the warmer months of the year. A solar heating facility would reduce winter heating needs by as much as 50%. However, on the basis of this analysis, it is clear that the use of waste methane gas in conjunction with a comprehensive energy conservation plan would be adequate and that a solar heating system, apart from its educational and research applications, would not be essential.

The preferred method of using the digester gas for producing heat is to fuel a boiler for the production of steam. The steam would supply radiant heat through furnaces located under the greenhouse growing benches and throughout the Skills Training Facility. The boiler would also be a source of steam for the soil and compost pasteurization units. Boilers would either be located on site or in the existing Southeast Treatment Plant. The treatment plant expansion plan requires the construction of a boiler facility for heating of the digesters.* In this case, increasing the capacity of the proposed boilers might be less costly than construction of a separate boiler facility for the greenhouse operation. In either case, underground insulated pipes would carry steam throughout the facility to provide a comfortable source of heat.

Use of Treatment Plant Waste Products: Sewage Sludge

The composting of a portion of the sewage sludge from the Southeast Treatment Plant with vegetable and plant fiber wastes

* Telephone conversation, Mr. Curburn, Southeast Treatment Plant Site Operations Manager, February 13, 1979.

would provide revenue from compost sales as well as a growing medium for a large portion of greenhouse production. Currently 200 tons of sewage sludge (20% solids content) is generated each day for five days a week by the Southeast Treatment Plant. Total sludge production after completion of the expanded treatment plant is expected to reach 250 tons per day or 1,250 tons per five day week for an annual production of 65,000 tons of sludge. The following calculations are performed to determine the approximate percentage of sewage sludge from the expanded treatment plant that would be utilized by the proposed composting facility.

The composting operation is designed to produce 15,000 cubic yards of compost each year. Given that there is roughly a 33% reduction in volume during the decomposition process, some 23,400 cubic yards of material will have to be composted. The composting plan requires three, 150 cubic yard compost windrows each week. The windrows would be 1 part sewage sludge to 2 parts bulking agent such as sawdust, rice hulls or shredded plant wastes. Assuming that 156 windrows would be established per year, 7,800 cubic yards or 6,240 tons (calculated at one yard of sludge weighing .8 tons) of sludge would be used per year. This is roughly 10% of the present treatment plant sewage sludge production.

Given the proximity of the proposed composting pad to the sludge digesters, the simplest and most economical method for transporting the treated sludge to the composting site would be conveyer belt. A conveyer belt system is presently employed by the existing treatment plant to load the dewatered sludge into trailer trucks for disposal. An extension of the conveyer system would be made to deliver a specified quantity of sludge from the digesters to the composting site.

The implementation of an Integrated Pest Management Program (IPM) would provide an environmentally sound control of insect pests in the greenhouse. Normal greenhouse practice is to use large amounts of toxic pesticides in the greenhouse for the control of pests, resulting in an expensive and unhealthy operation. An IPM program will maximize the use of cultural and biological control methods.

Given that the capitalization of the commercial Greenhouse/Garden Facility will be covered by the state, new technologies would have an opportunity to be tested and demonstrated. A

program to test and evaluate the performance of the new technologies should be established, the result of which would be of great value to commercial greenhouse growers throughout the state as well as an aid to the maintenance of an efficient commercial greenhouse enterprise.

Funding Sources

The principal funding source for the Greenhouse Facility operation would be the retail and wholesale revenues from the sale of plants, food products, plant starters, and compost products. These revenues are projected at an annual basis of \$1,224,000. Additional sales revenues may be generated by sale of worm castings and worms.

The diverse uses of the Greenhouse/Skills Training Facility as an urban facility for training, employment and agricultural/horticultural production to its use of urban eco-wastes makes it an ideal focus for alternative sources of public and private funding. Training and educational components of the facility program and quality control monitoring of plant and compost production might both encourage funding allotments to supplement revenue-supported program activities.

Organizations and agencies that are potential sources of support are as follows:

- CETA for the training of personnel
- U.S. Department of Energy for testing and expansion of methane heating systems

SKILLS TRAINING FACILITY

The Skills Training Facility would consist of a multiple use complex designed to accommodate and provide for a significant expansion in the activities of job training programs currently operating in the Bayview Hunters Point community. Primary facilities would include a mall of classroom buildings designed to serve two to three thousand students a year, a job counselling and placement center, a computer training facility and day care facilities.

Purpose and Function of Skills Training Facility

The essential purpose of the Skills Training Facility would be to provide meaningful job training for Bayview Hunters Point residents in high growth job areas.

In order to optimize the use of existing resources, the programs of the facility would not overlap or duplicate current job training programs in the area but would instead provide a basis for the upgrading and expansion of those programs. The physical structure and setting for the facility would be designed in a manner to help mitigate the negative visual and environmental effects of the expanded Southeast Treatment Plant.

Based upon these factors, four primary goals were established for the Skills Training Facility component:

- Provide job training in areas that are relevant to labor market characteristics of the Bayview Hunters Point community and linked to expanding job sectors in the labor market of the Bay Area
- Develop attractive physical structures and landscaping to help mitigate negative environmental and visual effects of the Southeast Treatment Plant expansion
- Use existing job training resources in the area to avoid duplication of services and diseconomies in the organization of programs
- Include the potential for new job training facilities, i.e., computer training facility, to complement existing job training programs thereby providing experience for trainees in new growth technologies.

To meet these goals, it is proposed that the center be established to provide facilities for the various training programs currently operating in the area. These include the Hunters Point Skills Center, the Bayview Community College, the Affirmative Action Program, adult education programs conducted by the public schools system, and programs that might be offered on an ADHOC basis by the Employment Development Department (EDD).

Relocation of these programs into a set of common facilities would have a marked improvement on their operational effectiveness. Most of the programs are presently working out

of inadequate physical facilities. The Bayview Hunters Point Skills Center, whose facilities are slightly less than 6,000 sq. ft. in space, cannot adequately accommodate its students and training activities. The Bayview Community College is using Burnett School for evening programs since it lacks facilities of its own.

The Skills Training Facility would provide these organizations with the amount and types of space needed for more effective service delivery. It would also promote effective use of space by having the facilities available for both daytime and evening use.

In addition, the facility would permit a significant expansion in present training programs in the area. For example, presently the Bayview Hunters Point Skills Center is primarily limited to pre-vocational training designed to provide the general educational skills needed to enter specialized vocational training. Through more comprehensive physical accommodations, the Skills Training Facility would provide a more complete ladder of vocational training from general education to specialized skills to on-the-job entry programs.

One of the biggest problems faced by current training programs is the limitation in placing their trainees in high growth job areas. There is a significant incompatibility between the skills structure of the labor force in Bayview Hunters Point, and the skills requirements for expanding job opportunities in the general labor market. An advantage of the Skills Training Facility is that it would increase market capacity of the skills produced by the new and expanded programs. Those occupations showing the greatest employment prospects in the general market tend to be professional service and white collar, while the majority of Bayview Hunters Point residents are employed in personal service and blue collar positions. Training in paramedical professions, clerical vocations and computer programming and operation, would prepare local residents for entry into white collar and professional service employment growth areas.

Governing Mechanism

Given the goal of achieving maximum use of existing resources, it would be appropriate to have the agencies presently conducting training programs in the area serve as the primary users of the facility space. As the overall administrative and management body for the Skills Training and Greenhouse

Facility components, the non-profit Corporation would allocate the use of the facility space among these agencies and determine their financial arrangements. Greenhouse and educational advisors may be placed on the non-profit Corporation Board or utilized by the Corporation as adjunct advisory persons. Funding for centralized staff activities would come from rent fees paid by the users of the facility and possibly supplemented by funding grants from appropriate federal and state programs.

Another alternative over the course of program development is to have the Community College District assume subordinate responsibility for central administrative coordination of the Skills Training function. Given the suitability of the facility for its training programs, the district would be the primary user of the facility. If the volume of its use greatly overshadows that of any other organization, it would then probably also assume responsibility for overall coordination of the Skills Training component.

Personnel/Labor

Staffing requirements are based on a rough estimate of the number of students that would be served by the proposed center. A survey of existing training programs indicates that approximately one thousand students are being served each year by the various training programs in the area. The proposed new facility would have a capacity to at least double this service level to a capacity of two to three thousand students a year. Based upon this expanded service level, the following are staffing requirements expressed in person-years.

- General Administrative Staff: Skills Training Facility
 - Site Administrator - 1
 - Directors - 2
 - Assistant Directors - 2
 - Secretary/Clerical - 5
 - Job Placement Counselor - 1
- Program Staff-Job Training
 - Coordinators - 5
 - Counsellors - 10
 - Instructors - 50 (Full and Part-time)
 - Secretary/Clerical - 6
 - Custodial/Security - 4

Furnishings and Equipment

The following is a list of furnishings and special equipment required for the Skills Training Facility. In addition to the described equipment, other furnishings and equipment presently used by skills training programs at other locations would be utilized at the new facility. Cost estimates are based upon 1979 trade prices. Cost estimates for furnishings and equipment do not include small and miscellaneous furnishings and office equipment.

- Paramedical Program

Hospital beds 20 at \$400 each	\$ 8,000
Bedside cabinets 20 at \$100 each	2,000
Miscellaneous medical support equipment	5,000

- Clerical Occupations Program

Electric typewriters 38 at \$565 each	21,470
Manual typewriters 30 at \$300 each	9,000
Typing desks 56 at \$65 each	3,640
L-shaped desks 25 at \$173 each	4,325
Upholstered chairs 56 at \$15 each	840
Steno chairs 25 at \$59 each	1,475
Printout calculators 15 at \$200 each	3,000
Electronic calculators 10 at \$200 each	2,000

- Basic Education

Language laboratory	50,000
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- General Equipment Requirements

72 in. work tables 42 at \$45 each	1,890
60 in. work tables 78 at \$30 each	2,340
Stacking chairs 183 at \$10 each	1,830
Chair desks 775 at \$25 each	19,375
Executive desks 63 at \$105 each	6,615
Executive arm chair 63 at \$75 each	4,725
Vanity table w/special lighting	450
Full-length 3-way mirror	400
Sewing machines 3 at \$100 each	300
Projector screens 38 at \$35 each	1,330
Student lockers 48 at \$26 each	1,248
4 drawer file cabinets 64 at \$120 each	7,680

Student lounge furniture	6,000
Child care furniture	6,000
Copier	<u>7,000</u>

TOTAL FURNISHINGS AND EQUIPMENT COSTS \$177,933

Space Requirements

Space requirements for the proposed buildings and uses are listed below. The major teaching and training functions would be housed in a campus mall. The space allocations identified in the space plan represent minimum space requirements as mandated by State Education Codes.

◦ Paramedic Program

Multi-purpose laboratory	3750 sq. ft.
-50 sq. ft./student	

Multi-purpose Instructional Supply Room	1000 sq. ft.
-15 sq. ft./student	

General Classrooms	1500 sq. ft.
-15 sq. ft./student	

Support-unit offices	160 sq. ft.
-80 sq. ft./office	

◦ Clerical Occupations

Typing Laboratory	2700 sq. ft.
-30 sq. ft./student	

Open-entry Classroom	180 sq. ft.
-30 sq. ft./student	

Walk-in Storage	1000 sq. ft.
-Equipment and supply storage	

Office Machines Classroom	750 sq. ft.
-30 sq. ft./student	

General Classrooms	3000 sq. ft.
-15 sq. ft./student	

Walk-in Closets attached to each classroom	576 sq. ft.
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- Basic Education

Language Laboratory	3000 sq. ft.
General Classrooms -15 sq. ft./student	9000 sq. ft.
Word-Processing Classrooms -30 sq. ft./students	1200 sq. ft.

- Computer Training Program

Three Hardware Rooms	1041 sq. ft.
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- Administrative/Other

Support-unit offices -80 sq. ft./office	1280 sq. ft.
Administrative -1200 sq. ft./office	3600 sq. ft.
Audio-visual Storage and Bookstore	1600 sq. ft.
Childcare -50 sq. ft./child	2000 sq. ft.
Student Lounge -15 sq. ft./student	4500 sq. ft.

TOTAL SPACE REQUIREMENTS INCLUDING HALLWAYS, RESTROOMS AND PUBLIC ACCESS	42,197 sq. ft.
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Building Configuration and Layout

Exhibit 9, the Site Plan, indicates the layout and configuration of the buildings and landscaping of the proposed Greenhouse/Skills Training Facility.

Landscaping

Landscaping features include the use of trees and landscape buffer areas to enhance the visual effects of natural and manmade amenities around each of the buildings.

Product, Service and/or Benefit

The proposed facility would produce a dramatic increase in the immediate benefits of the job training programs operating

in the area and in long-term benefits to the community as a whole. The current programs are presently serving one thousand students a year, and through the proposed facility they would serve two to three thousand a year. At present, none of the programs have the capacity to provide complete training ladders that take students from a general educational level to an apprenticeship level in a given occupation. Through the proposed facility, such a ladder would be developed for selected occupations and for the first time direct placement of students in the general labor market would be accomplished.

Immediate Benefits

- A two-fold increase in the number of students served by job training programs
- Extensive educational and training services, with a complete ladder of training and on-the-job experience in given occupations
- Direct placement services in given occupations
- Comprehensive counselling and placement services
- Day care facilities for trainees

Long-Term Benefits

- Reduction in the unemployment level of community residents
- Increase in community educational and income levels
- Visual and physical improvement of the environment surrounding the Southeast Treatment Plant
- Amelioration of residents' negative perceptions regarding the Southeast Treatment Plant

Market Demand

Existing skills training programs indicate a substantial project area and citywide demand for skills training programs in the projected curriculum areas. The Bayview Hunters Point Skills Training Center, located in the project study area, has current programs in paramedical/clerical occupations and

pre-vocational (basic education) skills training. Overall, the Center indicates an approximate 80% placement success rate for their program graduates. There is also evidence of industry commitments by Bank of America and Wells Fargo to job availability for graduates of a computer programmer and operator training program. This computer program would be a part of the new or added programs to be offered by the existing Skills Center as a new community college credit course program.

Capital Costs

The equipment and construction costs would be assumed to be fundable by a Clean Water Grant from the State Water Resources Control Board.

The following are rough cost estimates of the cost of construction and site preparation for the Skills Training component.

◦ Site Preparation (Skills Training Component cost is estimated at 2/7 of overall cost for entire 7 acre site based on ratio of allocated site use)	\$ 285,714
◦ Classroom and Administration Buildings	3,900,000
◦ Placement and Counseling Service Building and Day Care Facility	650,000
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TOTAL COST OF BUILDINGS AND SITE IMPROVEMENT	\$4,835,714
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TOTAL COST OF FURNISHINGS AND EQUIPMENT*	\$ 177,933
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TOTAL CAPITAL COSTS	\$5,013,647

Start-up and Operating Costs

The following section documents the start-up and operating costs as listed for the major components of Skills Training Facility operations.

* See detailed cost listing in Furnishing and Equipment Section.

	Start-up Costs	Operating Costs
Skills Training Administration	110,000	220,000
Job Training Programs	100,000	1,050,000
Replacement of Equipment, rents, utilities, office expenses, new furnishings and equipment		150,000
TOTAL START-UP AND OPERATING COSTS	\$210,000	\$1,420,000

The start-up costs for central administration would cover the personnel costs of Skills Training Administration for preliminary organization planning. Existing training programs indicate the importance of preliminary organizational planning for the effective operation of a new facility. In the first phase, the board and staff would operate with the commitment of 50% of its operational staffing. Responsibilities would include monitoring physical development. Since the job training programs are presently operational, moving expenses for relocation of the training operations are also included in the start-up costs.

The operating expenses are a projection of personnel and administrative costs based upon current costs of staffing and operation within existing programs. These costs would be expected to be covered by the funding sources of present training programs. Payment of program personnel would be the responsibility of the individual training and educational programs.

Funding Sources

It is expected that these programs would continue to have access to their present funding for job training programs. Other sources of funding would have to be developed for job training administration and operation of the day care facility. The following section identifies present and projected funding source alternatives.

Job Training Program Funding

At present, 80% or 90% of the job training program funds come from the State Department of Education Block Grant Programs. These funds are allocated on a yearly basis but serve as the continuing funding source for San Francisco Community College

vocational educational programs. An additional 10-15% of the job training funds presently come from Federal HEW funds.

Central Administration Funding

Central Administration expenses would be primarily funded from the rental user fees charged to the user agencies. The central administration would receive rent from the participating user agencies.

Job Placement Program Funding

U.S. Department of Labor Comprehensive Employment Training Act (CETA) provides grants or subsidies to job training agencies. This type of funding would most likely be available assuming the continuation of CETA programs.

Funding Source Summary

Funding would be most critical in the first year of operation. Once the viability of the facility is established, it is likely that funding could come from a variety of State and Federal sources. Discussions with agency officials at the state and federal level make clear the desire of these agencies to provide financial support to a job training program that is linked to a successful community industry.

APPENDIX B: SUMMARY OF COMMUNITY HOUSEHOLD SURVEY RESPONSES

The following tables document the tabulation of household survey responses concerning community perceptions of major community concerns, community employment and economic problems and respondent designations of the preferred community facility.

TABLE B-1
SUMMARY OF COMMUNITY CONCERNS
(Figures in Percentages)

CONCERNS	CENSUS TRACT						TOTAL
	230	231	232	233	234,610	609	
Crime/Law Enforcement	29.5	26.1	34.0	22.2	21.4	15.2	27.5
Unemployment/Economic Problems	15.9	22.6	26.9	40.7	15.5	21.7	20.2
Community Cleanup	12.6	10.3	10.3	3.7	13.6	6.5	11.5
Public Utilities/ Public Works	5.8	7.4	5.1	0	4.9	15.2	5.8
Environmental Problems	5.8	5.5	3.2	7.4	5.8	6.5	5.4
Education	2.9	3.2	2.6	3.7	3.9	0	3.1
Recreation	3.4	3.9	6.4	14.8	9.7	6.5	5.5
Traffic/ Transportation	8.2	6.1	3.2	0	3.9	10.9	5.8
Housing	2.9	4.2	.6	0	2.9	0	2.8
Other Social Problems	11.1	9.0	5.8	0	14.6	8.7	9.9
Other Physical Problems	1.9	1.6	1.9	7.4	3.9	8.7	2.4

TABLE B-2

PRESENT COMMUNITY EMPLOYMENT AND ECONOMIC PROBLEMS
(Figures in Percentages)

PROBLEMS	CENSUS TRACT						TOTAL
	230	231	232	233	234,610	609	
Job Training Programs	15.2	20.0	26.2	0	25.0	10.0	19.2
Create Additional Jobs	60.6	38.6	40.5	63.6	43.7	50.0	47.7
Involve City Hall	3.0	10.0	7.1	9.1	0	20.0	6.1
Affirmative Action	0	1.4	0	0	0	0	.4
More Investment in Community	3.0	4.3	9.5	18.2	0	10.0	5.4
Job Location Assistance	0	1.4	0	0	12.5	0	2.1
Increase Welfare Payments	9.1	5.7	2.4	0	6.3	0	5.6
Improve Welfare Eligibility	0	2.9	0	0	0	0	.8
Better Quality Jobs Needed	6.1	8.6	4.8	0	6.3	0	6.1
Inflation/International Problems	3.0	4.3	0	0	6.3	0	3.0
Loans Unavailable	0	0	0	0	0	10.0	.1
More Black Ownership	0	0	0	9.1	0	0	.6
Lack of Motivation	0	1.4	7.1	0	0	0	1.9
Early Retirement	0	0	2.4	0	0	0	.5
Other	0	1.4	0	0	0	0	.4

TABLE B-3

PREFERRED COMMUNITY FACILITY
(Figures in Percentages)

ALTERNATIVES	CENSUS TRACTS						TOTAL
	230	231	232	233	234, 610	609	
Commercial Greenhouse Facility	12.5	8.7	8.0	25.0	2.8	0	9.3
Skills Training Facility	45.8	58.7	58.0	25.0	58.3	75.0	53.0
Community Recreation and Meeting Center	13.9	11.5	14.0	12.5	19.4	10.0	14.2
Recycling and Reclamation Facility	27.8	21.2	20.0	37.5	19.4	15.0	23.5

